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# **metric measures**

**(JOURNAL OF WEIGHTS AND MEASURES)**

**STANDING METRIC COMMITTEE  
MINISTRY OF COMMERCE AND INDUSTRY**

**Vol. 5 MAY 1962 (VAISAKHA 1884) No. 3**

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*Cover design by R. Sarangan*

Annual Subscription Rs. 2.00

Single Copy 40 nP.

# **metric measures**

**METRIC MEASURES** is published every two months.

**METRIC MEASURES** provides information to the general public on the administrative, commercial, educational, industrial, historical and other aspects of weights and measures, with particular reference to the introduction of the metric system\*in India.

Contributions for publication should be sent to the Editor, **METRIC MEASURES**, Standing Metric Committee, Ministry of Commerce & Industry, Udyog Bhavan, New Delhi.

Enquiries regarding subscriptions and supply of copies should be addressed to the Business Manager, Publications Division, Ministry of Information and Broadcasting, Old Secretariat, Delhi-6.

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## *Sixth Meeting of Standing Metric Committee*

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THE sixth meeting of the Standing Metric Committee was held in Udyog Bhavan, Ministry of Commerce and Industry at 11 a.m. on 17 March 1962. Shri Satish Chandra, Deputy Minister for Commerce and Industry, Government of India, and Chairman of the Committee presided. Representatives of the Ministries of Commerce and Industry, Communications, Defence, Education, Finance, Food and Agriculture (Department of Agriculture), Information and Broadcasting, Law, Scientific Research and Cultural Affairs, as also of Railway Board, Directorate General of Posts and Telegraphs and the Indian Standards Institution attended the meeting.

Two important recommendations were made by the Committee. First, the Standing Metric Committee be dissolved and secondly, a permanent organization be set up at the Centre to coordinate the work of enforcement of weights and measures in various fields.

### **Chairman's Opening Remarks**

The Chairman, opening the meeting, said that the Standards of Weights and Measures Act, 1956, which became law in December 1956, gave 10 years for the complete adoption of the metric system in the country. Nearly half this period having passed, it was opportune to take stock of the progress achieved, and to make plans to complete the reform within the allotted time. The metric system had been brought into use in various fields, including Government departments, trade

and industry. The success achieved had been due to the cooperation of all concerned. Little use had to be made of the coercive provisions of the law. Government departments and public undertakings had adopted the metric system in transactions. Special mention might be made of the Railways, Posts and Telegraphs, Customs and Central Excise, and the Meteorological Department. The Indian Meteorological Department was the first organisation in the country to adopt the metric system. It did so on 1-7-1957, the date on which the international geophysical year began. The adoption of the new system was a very arduous task in undertakings performing commercial functions, like the P&T, and Railways, or those raising revenue, like the Customs and Central Excise. These departments had to refix rates in terms of metric units, buy and distribute metric weights to their establishments spread out all over the country, get weighing machines recalibrated and train their staffs at all levels. In converting postage rates, freight rates and the rates of customs and excise duties, care was taken to safeguard public revenues, and at the same time, avoid additional burdens on the tax payer. All major industries had also adopted the metric system in transactions. Raw materials and products were being bought and sold in terms of metric units. The steel industry had begun producing metric steel sections almost exclusively. Users of these sections were re-designing their products to facilitate substitution of inch sections.

In adopting the metric system, care had been taken to safeguard export markets in countries like Britain or the USA where trade and industry were being carried on in the foot-pound system. The tea and jute industries, for instance, continued to pack and invoice their products in the manner acceptable to their overseas customers.

The main purpose of the reform was standardisation of weights and measures in markets throughout the country. Previous attempts to do so were not successful because there was no organisation to enforce weights and measures. Enforcement organisations had been set up in the last 5 years. Nearly a thousand Inspectors of Weights and Measures had been recruited, trained and posted. The production of standard weights and balances of the kind used by Inspectors was an arduous task since they had to be of very high precision. The country had, however, become self-sufficient in Inspector's equipment. The production of millions of metric commercial weights and measures of capacity and length was another stupendous task. Manufacturers of weights and measures had been able to meet all demands.

In October 1958, the use of metric weights was permitted in selected areas. In October 1960, other weights were banned in these areas. Trade in these areas was conducted mainly by the use of metric weights. From April 1962, the use of weights other than metric weights would be illegal everywhere in the country. Metric length measures would be in force throughout the country from 1 October 1962, and metric capacity measures from 1 April 1963.

Much publicity had been conducted by the Publicity Departments of the Central and State Governments to familiarise the public with the new weights and measures. Thanks to this publicity, most people in the country knew what metric weights and measures were

although when buying things they often made their demands in seers. The publicity campaign should, therefore, not only continue but be intensified.

Decimal coinage and the metric system had yet to find their place in education, both general and technical. Approved textbooks in use mainly used the foot-pound and the indigenous systems in illustrations and exercises. It was necessary to make a thorough revision of the textbooks. A programme had been drawn up for the introduction of the metric system in technical education. Here again, the lack of books in English dealing with technical subjects using the metric system presented difficulties. Efforts were being made to get new books written, English books in use adapted or books in continental languages translated.

The Standing Metric Committee was set up in 1955 to advise Government on the form of legislation, phasing of the reform, publicity, and allied matters. These tasks had been completed, with a fair measure of success. He conveyed Government's appreciation of the services rendered by the Committee in implementing the reform of weights and measures. It was, however, time to consider whether there was need for the Committee to continue any longer. Although weights and measures was the responsibility of the States, the Government of India had a duty to ensure uniformity in enforcement procedure throughout the country, in the larger interest of trade and industry. For this purpose, the Government needed a small permanent organisation at the Centre. This organisation might also take over the residuary functions of the secretariat of the Standing Metric Committee, and advise State Governments and organisations of trade and industry during the remaining stages of the transition.

#### Discussion

In the discussion that followed, members expressed opinions on two main points:

## SIXTH MEETING OF STANDING METRIC COMMITTEE

the work done in the introduction of the metric system in their fields and whether the Standing Metric Committee should continue to work in its present form.

While most of the Government Departments had already adopted the metric system in commercial transactions, the change-over in technical field would take some more years. Thus re-designing equipment, rolling stock, locomotives etc. would necessarily be slow.

A programme of adoption of the metric system in higher technical education had been drawn up and was to be put into effect soon. Production of textbooks was under study. Till the books became available, teachers would have to work from notes.

In school education progress had been made in the revision of textbooks. There were, however, difficulties of frequent changes in books etc. The need for drastic revision of arithmetic textbooks was realized. Taking all the difficulties into consideration, it was possible that arithmetic textbooks might be revised completely by the beginning of the academic year 1963-64.

Decimal coinage was vitally linked with the metric system. Although all denominations of old coins except one anna and one pice had been withdrawn, it had not been possible to replace these two coins because there was a very large demand for decimal coins. The Mints were working longer hours and still the demand could not be met. It was possible that the remaining old coins would be withdrawn after the middle of 1963.

On the future of the Standing Metric Committee, it was unanimously agreed that the Committee in its present form should be wound up. There was, however, need for a small permanent organization at the Centre to ensure uniformity of enforcement procedure and to maintain liaison with various Ministries, State Governments and international bodies on weights and measures.

The Committee noted with approval that enforcement of weights and measures had been lenient. The progress achieved had been largely through persuasion and not coercion. Weights and Measures Departments in the States had attempted to secure the objects in view through persuasion, keeping the legal powers in the background. Conferences of Controllers of Weights and Measures were being held every 6 months to coordinate enforcement.

Under the law, the adoption of the metric system had to be complete by 1966. This applied only to transactions of a commercial nature. It had no relevance to conversion to the metric system in engineering. The re-designing of all equipment in the country to the metric system by 1966 would, in any case, be impracticable. Further, equipment designed in the foot-pound system might yet continue to be installed in the country, when productive units were set up in collaboration with countries like Britain or the USA. Steps had, however, to be taken to re-design equipment manufactured in the country according to a phased programme. A sound beginning had already been made. The Indian Standards Institution would offer technical advice to industry in conversion. In technical education also, the inch-pound system had to be recognised for some time to come.

Progress had been made in the revision of school books as well. By middle of the year, weights other than metric weights would be illegal throughout the country. All transactions by weight in markets would be in metric weights. Children at school should not, therefore, have to continue learning their lessons in terms of weights which had disappeared from the country. By 1963-64, all books in arithmetic would have been re-written.

Although much progress had been made, much yet remained to be done. It was

clearly necessary to set up a permanent organisation at the Centre to ensure that the uniformity that had been achieved was not dissipated by States acting without consultation with each other or with the Centre. Such action might result in complete diversity in enforcement procedure. A permanent organisation would, therefore, be required even after the metric system was fully adopted in the country.

The Chairman, winding up the discussion said that very good progress had been made in the last 5 years. Metric weights and measures, the metre, the litre and the kilogram, were understood by the people. The task appeared stupendous in the beginning. But the country had turned the corner. He expected that very soon only metric weights and measures would be in use for trading purposes in the country.

The Standing Metric Committee used to meet frequently in the beginning, when there was plenty of work to be done. It advised Government in drafting legislation for adopt-

ing the metric system and on its enforcement. During the last 5 years, while there had been no meetings of the Committee, its earlier recommendations were being implemented by the Ministry of Commerce and Industry.

#### **Summing up**

Summing up the discussion, the Chairman said that the consensus of opinion among members was in favour of:

- (1) Dissolving the Standing Metric Committee. Inter-ministerial discussions and consultations might be arranged whenever necessary.
- (2) Setting up a small permanent organisation under the Ministry of Commerce and Industry to carry on the work of the secretariat of the Committee, and to coordinate enforcement procedure throughout the country. The organisation would have responsibilities even after the metric system was completely adopted in the country and had, therefore, to be permanent.

The Chairman thanked the members for their advice and assistance. The Committee could take pride in having successfully completed the task allotted to it.

## **Metric System in Forestry**

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**C**ONSEQUENT on the decision of the Government of India to adopt the metric system of measurements in all spheres of trade, research and public transactions, a change-over has necessarily been introduced in the field of forestry. It covers forestry

research, timber trade and forest management.

#### **Use of Measurements in Forestry**

The basic unit of forest is a tree. It plays a vital role in ameliorating the conditions

## METRIC SYSTEM IN FORESTRY

of life by its utilization benefits, both direct and indirect. It is turned into various sizes and shapes to suit the fancy of the man and to various forms to serve his requirements, according to the capacity and capability of the tree and the utility of the species. The bulk of the tree is measured in terms of volume units. The girth (or diameter) and height of the tree are two main measurable attributes which closely define the volume of a tree. Incidentally, both are easy to measure and are largely relied upon to determine tree volume. An extension of this idea is found in so-called 'volume tables' in which the volume of various sized trees is detailed as a function of height and diameter or girth of the tree at a fixed height (*e.g.* Breast Height, *i.e.* 4·5 ft. above ground level). Therefore, the units required for the measurements of a tree must relate to girth (or diameter), height and volume.

The raw material from forests, particularly timber, in the first stage of conversion is formed into railway sleepers or rough beams, poles, props or round logs according to the demand and ease of transportation to depots and markets. Wood is also removed in the form of billets to be used as pulp wood or fuel. The purchaser converts the timber in this shape into various forms such as planks, beams, battens, blocks to suit his own requirements. The timber trade while dealing with the volume of wood recognises measurements of length, breadth and thickness for sawn timber and mid-girth and total length of logs and other round timber. The required

### METRIC EQUIVALENTS FOR MEASURES IN BRITISH UNITS

Measures	In British Units	Metric Equivalents
<b>GENERAL</b>		
Breast height for diameter measurement	4·5 feet	1·37 metres
Diameter class interval .. .. ..	4 inches	10 cm
Height .. .. .. ..	To the nearest foot	To the nearest decimetre
Height class .. .. .. ..	10 feet 5 feet	5 m, 3 m and 1 metre for large, medium and small trees respectively.

measurement units are, therefore, in respect of length, breadth, thickness and girth.

As a good manager of forests, a forester is required to know the composition and structure of forests under his charge. Quantitatively, he has to know the distribution of trees in his forest by diameter/girth classes, the growth rate of the various tree classes and similar other functions to assess the total growing stock, rate of increment and its future potentialities. All these determinations require standard measurement units.

### Change-over to Metric Units

The change-over had to be considered in the light of the requirements suited to the various aspects of forestry, described above in brief. Excepting the practice in vogue to measure girth or diameter at breast height, namely, at a fixed height of 4·5 ft from ground level, which will continue to be measured at the same height *i.e.* at 1·37 metres in metric units, all other standards of British units have been changed into metric system in such a way that though they are not the exact conversions of the British equivalents, they are close enough to them. It, therefore, means a rational adoption of metric system without losing the continuity of the earlier measurements.

Metric equivalents for measurements in British units, given in the following table, have been prescribed on the basis of the consensus of opinion of the Heads of Forest Departments of all the States of the Indian Union.

Metric Equivalents for Measures in British Units—*Contd.*

Measures	In British Units	Metric Equivalents
RESEARCH AND SAMPLE PLOTS		
Linear dimensions .. .. ..	.. To the nearest foot	To the nearest decimetre
Area of plot .. .. ..	.. In acres, up to 3 places of decimal	In hectares up to 3 places of decimal.
Diameter of trees .. .. ..	.. To the nearest 1/10th of an inch	To the nearest 2 mm
Girth of trees .. .. ..	.. To the nearest inch	To the nearest cm
Height of trees .. .. ..	.. To the nearest foot	To the nearest decimetre
Length of sections of sample tree ..	.. 10 ft and the last section not exceeding 15 feet	3 metres and the last section not exceeding 4·5 metres.
Standard timber (stem & branch) ..	.. Over 8" diameter over bark	Over 20 cm diameter over bark.
Standard smallwood (stem & branch) ..	.. From 8" diameter over bark to 2" diameter over bark	From 20 cm diameter over bark to 5 cm diameter over bark.
Top diameter .. .. ..	.. The average of 100 biggest diameters per acre.	The average of 250 biggest diameters per hectare.
Bark thickness .. .. ..	.. To the nearest 1/10 of an inch	To the nearest mm
Diameter classification of the crop ..	.. By 1" diameter class in ordinary sample plots and 0·3" in thinning research plots..	By 2 cm for ordinary sample plots and 1 cm for thinning research plots.
Number of annual rings .. .. ..	.. Per inch	Per 2 cm
Height of seedling .. .. ..	(i) In inches (ii) In ft & inches	(i) In centimetres (ii) In decimetres & centimetres
Diameter of seedlings .. .. ..	.. To the nearest 1/10 of an inch	To the nearest mm
Basal area .. .. ..	.. In square feet	In square metres
Area .. .. ..	.. In acres	In acres, hectares
Volume .. .. ..	.. (i) In cubic feet  (ii) In cubic feet & decimal	(i) In cubic metres up to two places of decimal. (ii) In cubic metres up to 3 places of decimal.

In order to visualise the magnitude of a cubic metre as compared to the cubic foot with which the trade has been so familiar till recently, the volume tables prepared of late give the volume figures in cubic metre by height and diameter classes in metre and centimetre classes respectively along with the volume figures in cubic feet by height

and diameter classes in feet and inch classes respectively.

Special conversion tables and other tables in metric units have also been compiled and published as *Metric Equivalents for Measures in British Units, Conversion Tables and Tables in Metric Units for Use in Forest Mensuration in India*.

# New Approach to Alcoholometry

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(The transition period for the change-over to the metric system in the alcohol industry is now over. A number of problems which required solutions have been satisfactorily resolved, at least for the time being.

In certain cases, as in alcoholometry, a temporary solution has been devised by converting the values of proof-gallons to proof-litres. This procedure will be followed until a thoroughly 'metric' solution, now under consideration of the Indian Standards Institution is ready. At this stage, therefore, it may be useful to review the progress of work on alcoholometry now being carried out by the ISI. This article indicates the various aspects of the work done in the ISI and it is hoped, would be useful to those concerned with the alcohol industry —Editor)

THE term 'alcoholometry' has been defined in the *Chambers Technical Dictionary* as 'the quantitative determination of alcohol in aqueous solutions'. Mixtures of ethanol, ( $C_2H_5OH$ ), loosely called alcohol, and water, are taxed in most countries of the world in amounts proportional to the quantity of ethanol present in the mixture. These taxes are realised in a few countries on the basis of weight of ethanol in 100 parts by weight of the mixture while in the large majority of countries it is by volume of ethanol contained in 100 volumes of the mixture at a given temperature. The yield from taxes is substantial and a small error in the determination of ethanol content would lead to a loss either to the State revenue or to the manufacturer or supplier.

In the modern industrial field ethanol has become one of the most important basic raw materials of the chemical industry and its importance is increasing day by day. It is, therefore, quite understandable that scientists and technologists of different countries have been paying so much attention to evolving correct and uniform methods for the determination of ethanol content in aqueous solutions.

## Important Factors

The volumetric content of ethanol in an aqueous solution depends on three factors :

- (1) total volume of the solution,
- (2) its temperature, and
- (3) its ethanol content.

Of these factors the last i.e. the ethanol content in an aqueous solution can be determined by methods based on the density, refractive index, oxidation index, boiling point, etc. The simplest and the quickest of these methods, however, is the one based on the density of ethanol-water mixtures. This method has been universally adopted for most purposes.

Density varies with temperature. In the case of ethanol-water mixtures the density decreases with increasing ethanol content as ethanol is lighter than water. It is,

therefore, necessary to reduce density data of ethanol-water mixtures with ethanol content to a fixed reference temperature. Temperatures such as 15° C, 15.56° C (converted from the British temperature of 60° F) and 20° C have been adopted in many countries for this purpose. The adoption of these different temperatures has created complications in international trade. Efforts are, therefore, being made to adopt internationally a uniform reference temperature.

What applies to the need for a uniform reference temperature also applies to the methods and apparatus used for the determination of density. Hydrometers are generally used for the determination. Many kinds of hydrometers, commonly known as alcoholometers, devised to indicate the ethanol content in terms of percent by volume, percent by weight, proof strength etc., are being used at present. In this case also, therefore, the need for unification of scale, graduation, calibration temperature, etc., is being increasingly felt.

#### Current Practice in India

The British proof spirit system of expressing ethanol content of spirit and spirituous preparations has been in vogue in our country for revenue purposes for many years. Since ethanol is subject to revenue control of some kind or other throughout its existence as ethanol, trade and industry have largely followed the same system.

The proof spirit system is in essence a volumetric system. Instead of adopting 100 percent ethanol as the base reference, a comparatively dilute ethanol-water mixture of accurately known properties is taken as the standard of reference. Thus dilute mixture has a specific gravity of 12/13 at 51° F compared to water at 51° F. This is known as proof spirit i.e. 100 Proof. Mixtures richer in ethanol content than proof

spirit are termed 'overproof', while weaker mixtures are called 'underproof'. Ethanol of 100 percent purity works out to be approximately 75 °F overproof (or 175 Proof) in this system. A liquid free from ethanol is naturally Zero Proof.

The proof strengths are determined by means of a set of instruments known as 'Sikes's hydrometers'. These hydrometers do not give the ethanol content directly or even the densities of the liquid directly. They indicate certain arbitrary values, which in conjunction with the temperature of determination can be converted into proof strength by means of appropriate tables.

Sikes's hydrometers are made of metal or glass. Only metal hydrometers are officially recognized in Britain. The need for hydrometers for use with very high strength ethanol-water mixtures at high temperature was felt in Britain and about 30 years ago the Sikes B (Metal) scale was introduced along with corresponding tables.

In our country, however, both metal and glass hydrometers with respective tables are in vogue. There does not appear to be any law or rule in our country prescribing that only metal or only glass hydrometers should be used. Sikes's A (glass) is also used to cover high strength of ethanol content at higher temperature.

The tables for use with glass Sikes's hydrometers (including Sikes A) were originally compiled many years ago by Sir C. H. Bedford (late) Director, Central Excise Laboratory for India on behalf of the Government of India. In the lower range of Sikes's hydrometers the values were obtained largely by experimental work. The results obtained with glass hydrometers and the corresponding tables are in agreement with those obtained with Sikes's metal hydrometers. The tables corresponding

## NEW APPROACH TO ALCOHOLOMETRY

to the high strength at high temperature ranges of Sikes A were prepared by extrapolation as corresponding metal hydrometers and tables were not in existence and probably large quantities of high strength ethanol-water mixture were also not available.

The result was that after the large scale production of power alcohol was taken up in this country, it was noticed that at high temperatures the glass Sikes's A hydrometer gave results which were at variance with those obtained with the corresponding metal hydrometer, *i.e.*, Sikes's B. At higher temperatures, there is an apparently higher indication of ethanol content by Sikes's A. This discrepancy starts at about 20°C and progressively increases as the temperature rises. In view of this discrepancy and with increasing production of absolute ethyl alcohol and high strength ethyl alcohol in the country the need was felt for reviewing the existing Sikes's A tables for use with Sikes's A hydrometers and making them correct at higher temperatures or replace Sikes's system or proof spirit system with another system.

### New Approach

The problem was referred to the Indian Standards Institution a few years back and was discussed thoroughly by the Alcohol and Allied Products Sectional Committee, CDC2, and later by the Panel set up to study the subject in detail.

The study received added importance with the adoption of the metric system in the country, since some of the tables now being used in the trade and industry also require recompilation.

After careful consideration of the problems it was recommended that since volumetric content of ethanol is an essential element in commercial transactions in the country, the method of expressing the percentage

of ethanol by volume using centesimal hydrometer and pycnometer methods should be adopted in the country.

As a corollary to this decision, it was considered necessary to adopt either 27° C (adopted by the Indian Standards Institution for atmospheric conditions for testing) 20° C, 15° C or any other suitable temperature as a standard reference temperature for the calibration of centesimal hydrometers and drawing up of temperature correction tables.

It is convenient and customary to use hydrometers at ambient temperatures. To make it possible to use hydrometers at ambient temperatures, it was essential to compile temperature correction tables so that by reference to such tables it would be possible to calculate the value at the standard reference temperature.

Lack of data and facilities in the country for drawing up such temperature correction tables at 27° C required that the study be based on the available literature and the practices being followed in various countries of the world, particularly those in vogue in Continental countries. It is worthwhile mentioning here that in order to fall in line with international practices our country has recently adopted 15° C as the standard reference temperature for the calculation of bulk quantities of petroleum and liquid petroleum products. It was also realized that centesimal hydrometers indicating percent by volume of ethanol at 15° C have to be imported from overseas countries till their production is started in the country.

After weighing all the factors, it was recommended that :

(1) 15° C be adopted as the standard reference temperature for calculating the volumetric content of ethanol in a mixture of ethanol and water, and

(2) the ethanol content of a mixture of ethanol and water at  $t^{\circ}\text{C}$  be expressed as the number of parts by volume of ethanol at  $15^{\circ}\text{C}$  contained in 100 parts by volume of the mixture at  $t^{\circ}\text{C}$ .

The second recommendation may be illustrated by an example. A consignment was found to contain 5 000 litres of ethanol and water mixture at  $20^{\circ}\text{C}$ . Appropriate centesimal hydrometer (alcoholometer), when immersed in this mixture, indicated 94.00° at  $20^{\circ}\text{C}$ . On reference to the temperature correction tables, 92.40° was found as the corresponding figure at  $15^{\circ}\text{C}$ . This showed that the mixture at  $20^{\circ}\text{C}$  contains 92.40 litres of ethanol at  $15^{\circ}\text{C}$  per 100 litre of the mixture at  $20^{\circ}\text{C}$ . The taxable quantity of ethanol when calculated would, therefore, be

$$\frac{5000 \times 92.40}{100} \text{ litres i.e. } 4620 \text{ litres.}$$

While hydrometers can conveniently be used for the measurement of ethanol content in bulk quantities of ethanol-water mixtures, the pycnometer method would have to be employed in the case of some of the pharmaceutical and other spirituous preparations for which very small quantities of samples are available.

On the basis of these recommendations, and taking tables currently used in France as the source material, various tables are now being compiled. Temperature correction tables for use with centesimal hydrometers and tables containing data at  $15^{\circ}\text{C}$  for specific gravity in vacuum, absolute density in air and volume in litres per 100 kg of ethanol-water mixture have been compiled on the basis of information and data available in *Guide Pratique D'Alcoometrie* adopted by

the Director General Customs, France and published by Librairie Administrative, P. Oudin, 27 rue Arsène-orillard Poitiers, Paris. Compilation of other tables specially for use with pycnometers is in progress.

#### Conclusion

As mentioned earlier, the existing tables used with Sikes's (A) glass hydrometer were found to give incorrect results with ethanol and water mixtures at high temperature and at high strength. Moreover, the concept of 'proof spirit' is not readily understandable and cannot be easily assimilated and translated into various calculations required for day-to-day work. The only advantage of the proof spirit system is its traditional use in the country.

The method of expressing the strength of aqueous solutions containing ethanol in terms of percentage by volume of ethanol is very simple, readily understood, and can be easily used for various calculations. The temperature correction tables are also expected to give more accurate results than the existing tables now being used with Sikes's(A) glass hydrometers for high temperature and high strength alcoholic solutions.

With the advent of the new era of industrialization the alcohol industry has made rapid strides. Alcohol is no longer regarded merely as a potable liquor but it is now a major basic industrial raw material for the chemical industries. It is considered that the adoption of the new system of alcoholometry in the country will be more convenient, practicable and rational from the point of view of the ever developing alcohol and other chemical industries.

## Cloth Requirements in Metric Terms

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(Length measures in the metric system were introduced all over the country from 1 October 1961. On 1 October 1962 their use will become compulsory. Already, prices are marked in terms of metres on cloth; mills which run their own retail shops are selling cloth in metric units. Khadi is sold in terms of the metre in many places. Within a few months all cloth will have to be sold in metres.

The necessity of suitable conversions of the requirements of cloth for various types of clothes as also

of expressing dimensions of readymade wear in terms of the metric system is real.

The tables which follow list the requirements of cloth for various ordinary purposes in terms of the metre.

The tables have been drawn up in consultation with the interests concerned.

—Editor)

**TABLE I--CLOTH REQUIREMENTS FOR MENS APPAREL**

Sl. No.	Items	Measurements in Yards (width in inches)		Converted Measurements in metres (width in cm)	Suggested Measurements
		(1)	(2)	(3)	(4)
1.	Coat (Woollen) Length	1 5/8 (54"-56")		1.49 (137-142 cm)	1.50 (135-145 cm)
		1 3/4 (54"-56")		1.60 (137-142 cm)	1.60 (135-145 cm)
		1 7/8 (54"-56")		1.71 (137-142 cm)	1.70 (135-145 cm)
		2 (54"-56")		1.83 (137-142 cm)	1.85 (135-145 cm)
Coat (Cotton)	..	3 (24"-36")		2.74 (61-91 cm)	2.75 (60-90 cm)
	..	3 1/2 (24"-36")		3.20 (61-91 cm)	3.20 (60-90 cm)
	..	3 3/4 (24"-36")		3.43 (61-91 cm)	3.40 (60-90 cm)
2.	Suit (Woollen)	..	3 (54"-56")	2.74 (137-142 cm)	2.75 (135-145 cm)
		..	3 1/8 (54"-56")	2.86 (137-142 cm)	2.85 (135-145 cm)
		..	3 1/4 (54"-56")	2.97 (137-142 cm)	3.00 (135-145 cm)
		..	3 1/2 (54"-56")	3.20 (137-142 cm)	3.20 (135-145 cm)
		..	3 5/8 (54"-56")	3.31 (137-142 cm)	3.30 (135-145 cm)
3.	Trousers (Cotton and silk)	..	2 3/4" (30")	2.51 (76 cm)	2.50 (75 cm)
		..	3 (24"-36")	2.74 (61-91 cm)	2.75 (60-90 cm)
		..	6 (24"-36")	5.49 (61-91 cm)	5.50 (60-90 cm)
4.	Trousers (woollen)	..	1 3/8 (54"-56")	1.26 (137-142 cm)	1.25 (135-145 cm)
		..	1 1/2 (54"-56")	1.37 (137-142 cm)	1.35 (135-145 cm)
		..	3 1/4 (24"-36")	2.97 (61-91 cm)	3.00 (60-90 cm)
5.	Trousers (silk) Trousers (cotton)	..	3 (24"-26")	2.74 (61-91 cm)	2.75 (60-90 cm)
		..	1 5/8 (54"-56")	1.44 (137-142 cm)	1.45 (135-145 cm)
6.	Overcoat (cotton) (Woollen)	..	3-3½ (24"-36")	2.74-3.20 (61-91 cm)	2.75-3.20 (60-90 cm)
		..	2 1/2-2 3/4 (54"-56")	2.29-2.51 (137-142 cm)	2.30-2.50 (135-145 cm)
7.	Churidar Pyjama (Woollen)	..	1 1/4 (54"-56")	1.14 (137-142 cm)	1.15 (135-145 cm)
		..	2 1/4 (36")	2.06 (91 cm)	2.05 (90-91 cm)

Sl. No.	Items	Measurements in Yards (width in inches)	Converted Measurements in metres (width in cm)	Suggested Measurements
(1)	(2)	(3)	(4)	(5)
8.	Pyjama suit (cotton)	5 1/2 (30") 6 (30")	5·03 (76 cm) 5·49 (76 cm)	5·00 (75-76 cm) 5·50 (75-76 cm)
9.	Achkan (cotton)	.. 5 1/2 (30")	5·03 (76 cm)	5·00 (75-76 cm)
10.	Sherwani (cotton) (woollen)	.. 5 (30") .. 2 1/2—2 3/4 (54"-56")	4·57 (76 cm) 2·29-2·51(137-142cm)	4·60 (75 cm) 2·30—2·50(135-142 cm)
11.	Nehru waist coat	.. 1 1/2 (30")	1·37 (76 cm)	1·35 (75 cm)
12.	(a) Salwar (b) Kameej	.. 2 (45") .. 2 1/2 (45")	1·83 (114 cm) 2·29 (114 cm)	1·85 (114-115 cm) 2·30 (114-115 cm)
13.	Bushshirts, Manila etc.	2 1/2 (36")	1·83 (91 cm)	1·85 (90-91 cm)
14.	Half Pant	.. 2 (36")	1·83 (91 cm)	1·85 (90-91 cm)
13.	Turban	.. 5 (22") 6 (22") 7 (22")	4·57 (56 cm) 5·49 (56 cm) 6·49 (56 cm)	4·50 (55-56 cm) 5·50 (55-56 cm) 6·50 (55-56 cm)
16.	Lungi	.. .. 2-2 1/2 (45"-50")	1·83-2·29(114-127cm)	1·85-2·30(115-130 cm)
17.	Dhoti	.. .. 4 (52") 4 1/2 (52") 5 (45") 2-2 1/2 (45"-52")	3·66 (132cm) 4·11 (132 cm) 4·57 (114 cm) 1·83-2·29(114-132cm)	3·75 (130-132cm) 4·10 (130-132 cm) 4·50 (114-115 cm) 1·85-2·30(115-135 cm)
18.	Shirt (cotton)			
	Half sleeve	.. .. 2 1/2 (36")	2·29 (91 cm)	2·30 (90-91 cm)
	Full sleeve	.. .. 3 (36")	2·74 (91 cm)	2·75 (90-91 cm)
19.	Dressing gown	.. 2 3/4 (54"-56") 3 (54"-56")	2·51 (137-142 cm) 2·74 (137-142 cm)	2·50 (135-145 cm) 2·75 (135-145 cm)

TABLE II—CLOTH REQUIREMENTS FOR WOMEN'S APPAREL

1.	Salwar	.. .. 3 (45")	2·74 (114 cm)	2·75 (114-115 cm)
2.	Kameej	.. .. 2 (45") 2 1/4 (45")	1·83 (114 cm) 2·06 (114 cm)	1·85 (115 cm) 2·05 (115 cm)
3.	Sarees	.. .. 5 (45"-48") 5 1/2 (45"-48") 6 (45"-48") 7 (46"-48") 8 (45"-48") 9 (45"-48")	4·57 (114-122 cm) 5·03 (114-122 cm) 5·49 (114-122 cm) 6·40 (114-122 cm) 7·32 (114-122 cm) 8·23 (114-122 cm)	4·60 (115-125 cm) 5·00 (115-125 cm) 6·50 (115-125 cm) 7·25 (115-125 cm) 7·25 (115-125 cm) 8·25 (115-125 cm)
4.	Blouses	.. .. 3/4-1 1/4 (36"-45")	0·69-1·14 (91-114 cm)	0·70-1·15 (90-115 cm)
5.	Choli pieces	.. .. 1/2—3/4 (36"-45")	0·46—0·69 (91-114 cm)	0·45—0·70 (90-115 cm)
6.	Petticoat	.. .. 2 1/2 (36") 2 (45")	2·29 (91 cm) 1·83 (114 cm)	2·30 (90-91 cm) 1·85 (114-115 cm)
7.	Shawls	.. .. 36"×72" 40"×80" 45"×90" 54"×100" 54"×108"	91 cm×183 cm 102 cm×203 cm 114 cm×229 cm 137 cm×254 cm 137 cm×274 cm	90×180 cm 100×200 cm 115×230 cm 140×250 cm 140×275 cm

**CLOTH REQUIREMENTS IN METRIC TERMS**

Sl. No.	Items	Measurements in Yards (width in inches)	Converted Measurements in metres (width in cm)	Suggested Measurements
(1)	(2)	(3)	(4)	(5)
8.	Chunni or Dupatta ..	2 1/4 (36"-45") 2 1/2 (36"-45")	2.06 (91-114 cm) 2.29 (91-114 cm)	2.05 (90-115 cm) 2.30 (90-115 cm)
9.	Skirt .. ..	2 1/2 (24"-36")	2.29 cm (61-91 cm)	2.30 (60-90 cm)
10.	Ladies short coat ..	2 (54"-56") 2 1/4 (54"-56")	1.83 (137-142 cm) 2.06 (137-142 cm)	1.85 (135-145 cm) 2.05 (135-145 cm)
11.	Ladies long coat ..	2 3/4 (54"-56") 2 1/2 (54"-56")	2.51 (137-142 cm) 2.29 (137-142 cm)	2.50 (135-145 cm) 2.30 (135-145 cm)
12.	Dressing Gown ..	3 (54"-56") 3 1/4 (54"-56")	2.74 (137-142 cm) 2.97 (137-142 cm)	2.75 (135-145 cm) 3.00 (135-145 cm)
13.	Ghagra .. ..	10 (36") 11 (36") 12 (36") 13 (36") 14 (36") 15 (36")	9.14 (91 cm) 10.06 (91 cm) 10.97 (91 cm) 11.89 (91 cm) 12.80 (91 cm) 13.72 (91 cm)	9.00 (90-91 cm) 10.00 (90-91 cm) 11.00 (90-91 cm) 12.00 (90-91 cm) 12.75 (90-91 cm) 13.75 (90-91 cm)

**TABLE III—READY MADE GARMENTS**

Sl. No.	Items	Measurement in inches	Converted Measurement in cm	Suggested Measurement cm
(1)	(2)	(3)	(4)	(5)
1.	Full Trousers Length .. .. ..	40" 41" 42" 43" 44"	102 104 107 109 112	100 102 104 106 108 110 112
	Waist .. .. ..	28" 30" 32" 34" 36" 38" 40" 42"	71 76 81 86 91 97 102 107	70 75 80 85 90 95 100 105 110
2.	Half Pants Length .. .. ..	16½" 17½" 17½" 18"	41.9 43.2 44.5 45.7	42 43 44 45 46
	Waist .. .. ..	28" 30" 32" 34" 36" 38" 40" 42" 44" 46" 48"	71 76 81 86 91 97 102 107 112 117 122	70 75 80 85 90 95 100 105 110 115 120

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Sl. No.	Items	Measurements in inches	Converted Measurement in cm	Suggested Measurement cm	
(1)	(2)	(3)	(4)	(5)	
3.	Shirt Collar	.. .. ..	13 $\frac{1}{2}$ " 14" 14 $\frac{1}{2}$ " 15" 15 $\frac{1}{2}$ " 16" 16 $\frac{1}{2}$ " 17"	34 35.6 36.8 38.1 39.4 40 40.6 41.9 43	35 36 37 38 39 40 41 42 43 44 45
4.	Coat Length	.. .. ..	28" 29" 30" 31" 32" 33" 34" 35" 36" 37" 38" 39" 40" 41" 42" 43" 44" 45" 46"	71 74 76 79 81 81 86 91 97 102 107 112 117	70 72 74 76 78 80 82 80 85 90 95 100 105 110 115 120
Chest		.. .. ..	32" 33" 34" 35" 36" 37" 38" 39" 40" 41" 42" 43" 44" 45" 46"	81 86 91 97 102 107 112 117 122 127 132 137 142	80 85 90 95 100 105 110 115 120
5.	Underwear (Katchhas)	.. .. ..	36" 38" 40" 42" 44" 46" 48" 50" 52" 54" 56"	91 97 102 107 112 117 122 127 132 137 142	90 95 100 105 110 115 120 125 130 135 140
6.	Kulhas	.. .. ..	20" 20 $\frac{1}{2}$ " 21" 21 $\frac{1}{2}$ " 22" 22 $\frac{1}{2}$ " 23" 23 $\frac{1}{2}$ " 24"	50.8 52.1 53.3 54.6 55.9 57.2 58.4 59.7 61.0	50 51 52 53 54 55 56 57 58 59 60
7.	Bushshirts	.. .. ..	32" 34" 36" 38" 40" 42" 44" 46"	81 86 91 97 102 107 112 117	61 80 85 90 95 100 105 110 115 120

**CLOTH REQUIREMENTS IN METRIC TERMS**

<b>Sl. No.</b>	<b>Items</b>	<b>Measurement in inches</b>	<b>Converted Measurement in cm</b>	<b>Suggested Measurement cm</b>
<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>
8.	Bandi (Jawahar) ..	32" 34" 36" 38" 40" 42" 44"	81 86 91 97 102 107 112	80 85 90 95 100 105 110
9.	Kurta .. ..	32" 34" 36" 38" 40" 42" 44"	81 86 91 97 102 107 112	80 85 90 95 100 105 110
10.	Pyjama .. ..	40" 41" 42" 43" 44"	102 104 107 109 112	100 102 104 106 108 110 112
11.	Sola & Felt Hats ..	6 1/2" 6 5/8" 6 3/4" 6 7/8" 7" 7 1/8" 7 3/8" 7 1/2"	16.5 16.8 17.1 17.5 18.1 18.7 19.1 20.3	16 16.5 17 17.5 18 18.5 19 19.5 20
12.	Caps .. .. -	18" 18 1/2" 19" 19 1/2" 20" 20 1/2" 21" 21 1/2" 22" 22 1/2" 23" 23 1/2" 24"	46 47 48.3 49.5 50.8 52 53.3 54.6 55.9 57.2 58.4 59.7 61	45 46 47 48 49 50 51 52 53 54 55 56 57 58 60 61
13.	Ties Length .. ..	50' 51' 52' 53' 54"	127 129.5 132 135 137.2	126 128 130 132 134 136 138 140

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Sl. No.	Items	Measurement in inches	Converted Measurement in cm	Suggested Measurement cm
(1)	(2)	(3)	(4)	(5)
14.	Belts .. ..	34" 36" 38" 40" 42"	86 91 97 102 107	85 90 95 100 105 110
15.	Socks .	10" $10\frac{1}{2}"$ 11"	25.4 26.8 27.9	25 26 27 28
16.	Woollen Sweaters & Pullovers .. .. (Half sleeves, full sleeves and sleeveless).	14" 16" 18" 20" 22" 24" 26" 28" 30" 32" 34" 36" 38" 40"	36 41 46 51 56 61 66 71 76 81 86 91 97 102	35 40 45 50 55 60 65 70 75 80 85 90 95 100
17.	Umbrellas length	36"	91	90
<b>BOY'S WEAR</b>				
1.	Belts ..	32" 30" 28" 26"	81 76 71 66	80 75 70 65
2.	Half Pants Length ..	10" $10\frac{1}{2}"$ 11" $11\frac{1}{2}"$ 12" $12\frac{1}{2}"$ $13\frac{1}{2}"$ $13\frac{3}{4}"$ 14" $14\frac{1}{2}"$ 15" $15\frac{1}{4}"$ 16" $16\frac{1}{2}"$ 17" $17\frac{1}{2}"$ 18"	25.4 26.8 27.9 29.2 30 31.8 33 34.3 35.6 36.8 38.1 39.4 40.6 42.9 43.2 44.5 45.7	25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46

CLOTH REQUIREMENTS IN METRIC TERMS

Sl. No.	Items	Measurement in inches	Converted Measurement in cm	Suggested Measurement cm
(1)	(2)	(3)	(4)	(5)
	Waist .. .	20" 22" 24" 26"	51 56 61 66	50 55 60 65
3.	Shirts Neck .. .	10" 10½" 11½" 11¾" 12"	25·4 26·8 27·9 29·2 30	25 26 27 28 29 30
	Chest .. .	22" 24" 26" 28" 30" 32"	56 61 66 71 76 81	55 60 65 70 75 80
4.	Hat sizes .. .	5" 5½" 5¾" 6"	12·7 13·3 14·0 14·6 15·2	12·5 13·0 13·5 14·0 14·5 15·0
5.	Socks .. .	6½" 7" 7½" 8" 8½" 9"	16·5 17·8 19·1 20·3 21·6 22·9	16 17 18 19 20 21 22 23
	<b>LADIES' WEAR</b>			
1.	Blouse .. .	28" 30" 32" 34" 36" 38"	71 76 81 86 91 97	70 75 80 85 90 95 100
2.	Skirts Waist	24" 26" 28" 30" 32"	Length 32" 61 66 71 76 81	Length 81 cm 65 70 75 80
3.	Jeans Waist	22" 24" 26" 28" 30" 32"	Length 39" 56 61 66 71 76 81	Length 99 cm 65 70 75 80
	Blouse ..	32" 34" 36"	81 86 91	80 85 90

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Sl. No.	Items	Measurement in inches	Converted Measurement in cm	Suggested Measurement cm
(1)	(2)	(3)	(4)	(5)
4. Ghagra Length	.. ..	40"	102	102
		41"	104	104
		42"	107	106
		43"	109	108
		44"	112	110
		45"	114	112
				114
5. Rain Coats	.. ..	38"	97	98
		39"	99	100
		40"	102	102
		41"	104	104
		42"	107	106
		43"	109	108
		44"	112	110
		45"	114	112
		46"	117	114
				116
				118
				120

CHILDREN'S WEAR

1. Children's frocks	..	12"	30	30
		14"	36	35
		16"	41	40
		18"	46	45
		20"	51	50
		22"	56	55
		24"	61	60
		26"	66	65
		28"	71	70
		30"	76	75
		32"	81	80
2. Baby's Rain Coat	..	20"	51	50
		21"	53	52
		22"	56	53
		23"	58	56
		24"	61	58
		25"	64	60
3. Baby's socks	..	5"	12.7	12
		5½"	14.0	13
		6"	15.2	14
				15

**CLOTH REQUIREMENTS IN METRIC TERMS**

**TABLE IV—HOUSEHOLD ACCESSORIES**

<b>Sl. No.</b>	<b>Items</b>	<b>Measurement in Yards/ feet/inches</b>	<b>Converted Measurements metres (width in cm)</b>	<b>Suggested Measurements (cm)</b>
<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>
1.	Blankets width			
	Length	... 50"×84" 52"×86" 54"×88" 56"×90" 58"×92" 60"×94" 62"×100" 64"×104"	127×213 132×218 137×224 142×229 147×234 152×239 157×254 163×264	125×215 130×220 135×225 140×230 145×235 150×240 155×250 160×260
2.	Bed Covers ..	... 54"×90" 60"×90" 90"×108"	137×229 152×229 229×274	135×230 150×230 230×275
3.	Bed Sheets ..	.. 54"×90" 63"×100" 90"×108"	137×229 160×254 229×274	135×230 160×250 230×275
4.	Pillow Covers ..	.. 16"×26" 18"×26" 14"×20"	41× 66 46× 66 36× 51	40×65 45×65 35×50
5.	Sofa, Curtain & Tapestries Length ..	10 yds (46—48") 14 yds (46"—48") 18 yds (46"—48") 21 yds (46"—48")	9·14 m (117—122 cm) 12·80 m (117—122 cm) 16·46 m (117—122) 19·20 m (117—122 cm)	10 m (120 cm) 15 m (120 cm) 15 m (120 cm) 20 m (120 cm)
6.	Towels (Mill Made & Handloom) .. ..	12"×12" 16"×25" 24"×45" 22"×36" 20"×40" 22"×44" 24"×48" 27"×54" 30"×60" 47"×80"	30·5×30·5 cm 41×64 cm 61×114 cm 56×91 cm 51×102 cm 56×112 cm 61×122 cm 69×137 cm 76×152 cm 119×203 cm	30×30 40×65 60×115 55×90 50×100 55×110 60×120 70×140 75×150 120×200

TABLE V—MISCELLANEOUS REQUIREMENTS

Sl. No.	Items	Measurements in ft' and inches	Converted Measurements metres cm	Suggested Measurements m/cm
		(2)	(3)	(4)
1. Durries	.. ..	4' x 9' 5' x 8' 6' x 9' 9' x 12' 12' x 15' 12' x 18' 15' x 21'	1.22 x 2.74 m 1.52 x 2.44 m 1.83 x 2.74 m 2.74 x 3.66 m 3.66 x 4.57 m 3.66 x 5.49 m 4.57 x 6.40 m	1.20 x 2.75 m 1.50 x 2.50 m 1.80 x 2.75 m 2.75 x 3.75 m 3.75 x 5.50 m 3.75 x 5.50 m 4.50 x 6.50 m
2. Coir Carpets & Kalin & Rugs		3' x 6' 4' x 7' 5' x 8' 6' x 9' 8' x 10' 9' x 9' 9' x 12' and Upto 12' width and to any length according to demand.	0.91 x 1.83 m 1.22 x 2.13 m 1.52 x 2.44 m 1.83 x 2.74 m 2.44 x 3.05 m 2.74 x 2.74 m 2.74 x 2.74 m Upto 3.66 m width and to any length accord- ing to demand.	0.90 x 1.80 m 1.20 x 2.00 m 1.50 x 2.50 m 1.80 x 2.75 m 2.50 x 3.00 m 2.75 x 3.75 m 2.75 x 2.75 m Upto 3.75 m width and to any length accord- ing to demand.
3. Coir Mats or door mats		Size No. 0   22" x 12" 1 24" x 14" 2 27" x 16" 3 30" x 18" 4 33" x 20" 5 36" x 22" 6 39" x 24" 7 42" x 26" 8 45" x 28" 9 48" x 30"	56 x 30 cm 61 x 36 cm 69 x 41 cm 76 x 46 cm 84 x 51 cm 91 x 56 cm 99 x 61 cm 107 x 66 cm 114 x 71 cm 122 x 76 cm	55 x 30 cm 60 x 35 cm 70 x 40 cm 75 x 45 cm 85 x 50 cm 90 x 55 cm 100 x 60 cm 105 x 65 cm 115 x 70 cm 120 x 75 cm
4. Coir Mattings	Width ..	18" (Rolls of 50 yd.) 24" 27" 30" 36" 48" 54" 72"	46 cm (rolls of 45.72 m) 61 cm 69 cm 76 cm 91 cm 122 cm 137 cm 183 cm	45 cm (50 m length) 60 cm 70 cm 75 cm 90 cm 120 cm 140 cm 180 cm
5. Rubber Matting	..	36" width (in rolls of 48' —60')	91 cm width (rolls of 14.63—18.29 m)	90 cm (15—20 m)
6. Curtain cloth	Length ..	35 yd	32 m 32.92 m 35.83 m 34.75 m 35.66 m 45.58 m 51.49 m 38.40 m 39.32 m 40.23 m 41.15 m	32 m 33 m 34 m 35 m 36 m 37 m 38 m 39 m 40 m 41 m 42 m
	Width .. ..	46" 47" 48"	117 cm 119 cm 122 cm	118.5 cm 120 cm 122.5 cm

**CLOTH REQUIREMENTS IN METRIC TERMS**

<b>Sl. No.</b>	<b>Items</b>	<b>Measurements in yards/feet/inches</b>	<b>Converted measurements in metres/cm</b>	<b>Suggested Measurements m/cm</b>
7.	Plastic sheetings	.. 36" (rolls of 50 yd.) 48" 54"	91 cm (rolls of 45.72 m) 122 cm 137 cm	90 (50 m rolls) 120 " 140 "
8.	Grass mats ..	.. 40" x 72" 48" x 72"	102 x 183 m 122 x 183 cm	100 x 180 cm 120 x 180 cm
9.	Floorings, width ..	.. 36" (rolls of 50 yd.) 44" (50 yd) 48" (50 yd) 56" (50 yd)	91 cm (rolls of 45.72 m) 112 (45.72 m) 122 (45.72 m) 142 (45.72)	90 cm (50 m rolls) 100 cm (60 cm rolls) 120 cm (50 m rolls) 140 cm
10.	Namdas ..	.. 4' x 6' 3' x 5'	122 x 183 cm 91 x 152 cm	120 x 180 cm 90 x 150 cm
11.	Leather Suitcases			
	Length .. ..	10" 12" 14" 16" 18" 20" 22" 24" 26" 28" 30"	25.4 30.5 35.6 40.6 45.7 50.8 55.9 61.0 66.0 71.1 76.2	25 30 35 40 45 50 55 60 65 70 75
	Width .. ..	8" 9" 10" 11" 12" 13" 14" 15" 16" 17" 18"	20.3 22.9 25.4 27.9 30.5 33.0 35.7 38.1 40.6 43.2 45.7	20 22 24 26 28 30 32 34 36 38 40 42 44 46
	Depth .. ..	4" 4½" 5" 5½" 6" 6½" 7" 7½" 8" 8½" 9"	10.2 11.4 12.7 14.0 15.2 16.5 17.7 19.1 20.3 21.6 22.9	10 11 12 13 14 15 16 17 18 19 20 21 22 23
	<b>Holdalls</b>			
	Width .. ..	27" 30" 33" 36"	69 76 84 91	70 75 80 85 90
	Length .. ..	60" 64" 68" 72"	152 163 173 183	150 160 170 180
	Depth .. ..	4" 6"	10 15	10 15

## Recent Notifications

(I) *Amendment to the Mineral Conservation & Development Rules, 1958.*

No.MII-185(7)/59 dated 20th December 1961

In exercise of the powers conferred by Section 18 of the Mines and Minerals (Regulation and Development) Act, 1957 (67 of 1957), the Central Government hereby makes the following rules further to amend the Mineral Conservation and Development Rules, 1958, namely:

1. The rules may be called the Mineral Conservation and Development (Third Amendment) Rules, 1961.

2. In the Mineral Conservation and Development Rules, 1958,—

(1) in rule 11 and 13, for the expression ‘on a scale of not less than 1” = 100’ the expression ‘on a scale not less than 1 cm = 10 metres’ shall be substituted ;

(2) in rule 17(a) and (b), for the expression ‘exceeding 500’ the expression ‘exceeding 20 metres’ shall be substituted;

(3) in Form H-1,

(a) in clause 2 (f) and (h) of Part I and in items 6 and 8 of Part II, for the expression ‘per ton’, wherever occurring, the expression ‘per tonne’ shall be substituted ;

(b) in Part III,—

(i) in sub-clause (ii) of clause 1, for the expression ‘acres/sq. ft.’, the expression ‘hectares/sq. metres’ shall be substituted ;

(ii) in clause 5, for the expression ‘per ton’, the expression ‘per tonne’ shall be substituted ;

(iii) in clause 8(a),—

(A) in items 1, 2 and 3, for the expression ‘tons’ the expression ‘tonnes’ shall be substituted;

(B) in items 4 and 5, for the expression ‘Imp. Gals.’, the expression ‘litre’ shall be substituted;

(C) in item 6, for the expression ‘mds.’, the expression ‘quintals’ shall be substituted ;

(4) in Form H-2, for the expression ‘per ton’, wherever occurring, the expression ‘per tonne’ shall be substituted;

(5) In Form H-3,—

(a) in clause 2 (f) and (h) of Part I, for the expression ‘per ton’ the expression ‘per tonne’ shall be substituted ;

(b) in Part II—

(i) in clause 2—

(A) in sub-clause (a), for the expression ‘tons’ wherever occurring, the expression ‘tonnes’ shall be substituted ;

(B) in sub-clauses (b) and (c), for the expression ‘(Tons or Cwts)’, wherever occurring , the expression ‘(Tonnes or Quintals)’ shall be substituted ;

- (ii) in clause 3, for the expression 'Cwts', the expression 'quintals' shall be substituted;
  - (iii) in clause 4, for the expression '(Tons or Cwts)', the expression '(Tonnes or Quintals)' shall be substituted;
  - (iv) in clauses 5, 6 and 8, for the expression 'per ton' or 'tons', wherever occurring, the expression 'per tonne' or 'tonnes' shall respectively be substituted;
- (6) in Form H-4,—
- (a) in clause 2 (f) and (h) of Part I, for the expression 'per ton', the expression 'per tonne' shall be substituted;
- (b) in Part II—
- (i) clause 1 (a), for the expression 'Tons', the expression 'Tonnes' shall be substituted;
  - (ii) in clause 2—
  - (A) in sub-clause (a), for the expression 'tons' wherever occurring the expression 'tonnes' shall be substituted;
  - (B) in sub-clauses (b) and (c), for the expression 'Tons or Cwts', wherever occurring, the expression 'Tonnes or Quintals' shall be substituted ;
  - (iii) in clauses 3 and 4, for the expression '(Tons or Cwts)', the expression '(Tonnes or Quintals)' shall be substituted ;
  - (iv) in clauses 5, 6 and 8, for the expression 'per ton' or 'tons', wherever occurring, the expression 'per tonne' or 'tonnes' shall respectively be substituted;
- (7) in Form H-5, for the expression 'Cwts', or 'Mds' or 'Md.', wherever

occurring, the expression 'Quintals' or 'Quintal' shall respectively be substituted ;

(8) in Form H-6,—

- (a) in clause 11 of Part I, for the expression 'tons', wherever occurring, the expression 'tonnes' shall be substituted ;
- (b) in clause 10 of Part II, for the expression 'ton' the expression 'tonnes' shall be substituted ;

(9) in Form H-7,—

(a) in clause 2 of Part I—

- (i) in item (f), for the expression 'per ton', the expression 'per tonne' shall be substituted;
- (ii) in item (h), for the expression 'per cwt/ton', the expression 'per quintal/tonne' shall be substituted;

(b) in Part II,—

- (i) in clauses 2 and 5, for the expression 'Tons' or 'per ton', wherever occurring, the expression 'Tonnes' or 'per tonne' shall respectively be substituted;
- (ii) in clause 6, for the expression 'per Ton/Cwt', the expression 'per Tonne/Quintal' shall be substituted;

(10) In Form I, Form J and Form L, for the expression 'Tons', wherever occurring, the expression 'Tonnes' shall be substituted;

(11) in Form K, for the expression 'mds' wherever occurring, the expression 'quintals' shall be substituted;

(12) in Form M, in clause 8, for the expression 'on a scale 1" = 330", the expression 'on a scale 1 cm. = 40 metres' shall be substituted.

Government of India, Ministry of Steel, Mines and Fuel, (Department of Mines and Fuel).

(2) *Capacity Measures*

S.O. No. 742 dated 7th March 1962.

In exercise of the powers conferred by sub-section (3) of section 1 of the Standards of Weights and Measures Act, 1956 (89 of 1956), the Central Government hereby appoints the 1st day of April 1962 as the date on which the provisions of said Act, in so far as they relate to units of capacity, shall come into force in the whole of India except the State of Jammu and Kashmir and except in those areas in which, or in those classes of undertakings or those class of goods in respect of which, the said provisions have already come into force.

S.O. No. 743 dated 7th March 1962.

In exercise of the powers conferred by Section 14 of the Standards of Weights and Measures Act, 1956 (89 of 1956), the Central Government hereby permits, in respect of the areas referred to in the Notification of the Government of India in the Ministry of Commerce and Industry, S.O. No. 742 dated the 7th March, 1962 the continuance of the use for a period of one year from the 1st day of April, 1962 of any unit of capacity which immediately before that date was in use in respect of the said areas.

(3) *Amendment of S.O. 733.*

S.O. No. 963 dated 30th March, 1962.

In exercise of the powers conferred by section 14 of the Standards of Weights and Measures Act, 1956 (89 of 1956), the Central Government hereby makes the following amendments in the Notification of the Government of India in the Ministry of Commerce and Industry No. S.O. 733 dated the 29th March, 1961, namely :—

In the said Notification—

- (1) for the words "classes of undertakings of goods", the following shall be substituted, namely :—  
"classes of undertakings or of goods (other than Government Departments) in so far as they undertake the survey of land or mines";
- (2) the following proviso shall be added at the end, namely :—  
"Provided that, in respect of Government Departments in so far as they undertake the survey of land or mines, the Central Government permits the continuance in use of any such weight or measure upto and inclusive of 31st March, 1963".

**Metric Stall in Madras Fair**

The Department of Weights and Measures, Madras took part in the second National Agriculture Fair held at Madras between 14 January 1962 and 11 March 1962. In the Metric Stall were exhibited working standards of the Inspector as well as commercial weights, measures etc. produced by leading manufacturers of Madras city.

Fig. 1—Shri M. A. Manickavelu, Minister for Revenue and Health, Government of Madras, visited the Madras stall. Here he is seen examining capacity measures.



Considerable publicity was given to the various steps taken to enforce metric weights and measures in the State.



Fig. 2—Shri S. Moni, Controller of Weights and Measures, Madras, demonstrates the difference between Madras measures and litre measures. He is showing how salt when sold by measure is a loss to the public owing to difference in qualities.

More than 5 lakh people weighed themselves on the platform machine kept in the stall. The difference between the old units and new was demonstrated by actually weighing or measuring out commodities.

#### New Standard of Atomic Weights $^{12}\text{C}$

At a meeting (held in Montreal during 2-5 August 1961) of the Council of the International Union of Pure & Applied Chemistry, the new scale of atomic weights based on the carbon isotope 12, as proposed by the Commission on Atomic Weights, was adopted [J. sci. industr. Res., 20A (1961), 41]. The International Union of Pure and Applied

Physics had also adopted earlier (in 1960) the carbon-12 isotope as the reference species for the physical scale in preference to oxygen-16. Thus, all nuclidic masses and atomic weights and quantities and constants derived from them will henceforth be expressed on a common scale, for which the exact number 12 is taken as the relative nuclidic (atomic) mass of carbon isotope-12. A revised table of relative atomic masses based on the carbon 12 scale has been published in Information Bulletin No. 14B (September 1961) of the International Union of Pure & Applied Chemistry. (J. Sci. Industr. Res. 21A, Feb. 62, p 104).

#### Adoption of A-Size of Paper in Madras

It will be recalled that about a year ago, it was recommended by the Conference of Controllers of Printing and Stationery, Central and State, that the international standard sizes of paper be adopted.

Some States have already begun the change-over. The Printing and Stationery Department of Madras State is using A-series of paper for its publications. The following books have already been printed in the A-series of sizes as indicated :

Title	Size
(1) Instructions for Presiding Officers (English) ..	A5
(2) Gramanalam (Tamil) ..	A4
(3) Mezhichelvam (Tamil) ..	A4
(4) Harijana Nalathurayum as Parijum .. .. ..	A5

The printing was done in RA1 size of paper.

This is a welcome step and it is hoped that other States will also start using the international paper sizes shortly.

#### Metric System in Alcohol Industry

A meeting of Excise Commissioners of States, manufacturers of alcohol preparations

and others concerned was held in Udyog Bhavan on 19 March 1962 under the Chairmanship of Shri K. V. Venkatachalam, Joint Secretary, Ministry of Commerce and Industry, New Delhi.

Excise Departments in States have now adopted the metric system in the levy of duties except in Andhra Pradesh and Mysore where it will start from the beginning of their excise year, namely 1 October 1962 and 1 July 1962.

Some important recommendations were as follows :

Filling capacity of bottles for liquor : 750 ml, 600 ml, 500 ml, 375 ml, 300 ml, 250 ml, and 180 ml with a permissible error in filling —2 percent subject to a maximum of 7.5 ml.

Filling capacity of bottles for beer : 650 ml and 325 ml with a permissible error in filling of —2 percent. Bottles of sizes 26-2/3 oz. 22 oz, 13-1/3 oz, 11 oz, and 6-2/3, could be used for three years but should be filled to 750, 600, 375, 300 and 180 ml respectively. 24 oz and 12 oz bottles may be used if they can be filled to 600 and 300 ml. Filled bottles of above sizes in stock would be sold for two years. Permits issued till the date of in-

troduction would be valid even if quantities were given in gallons. Permits issued afterwards would show quantities in metric units. Only metric capacity measures should be used in the sale of spirits. It was also agreed that flow meters may be used to measure spirit in vats, storage tanks, etc.

*Amendment of S.O. 1220*

S.O. No. 1098, dated 5th April 1962—In exercise of the powers conferred by Section 14 of the Standards of Weights and Measures Act, 1956 (89 of 1956), the Central Government hereby makes the following amendment in the Notification of the Government of India in the Ministry of Commerce and Industry No. S.O. 1220 dated the 30th May 1961, namely :—

In the said notification, the following proviso shall be added at the end, namely :—

“Provided that, in respect of any such undertaking in or any such department of Government of the State of Andhra Pradesh and the State of Mysore, the Central Government permits the continuance in use of any such weight or measures up to and inclusive of the 30th September 1962 and the 30th June 1962 respectively.”



## Readers' Forum

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### **Stainless Steel for Standard Weights**

Dear Sir,

In your September 1961 (Vol. 4, No. 5) issue of *Metric Measures* you have noted, on page 28, a paper by S. J. Rosenberg and T. P. Royston, published January 1961 in *Materials Research & Standards*, in which it is said that a special stainless steel having a density of 8·4 grams per cubic centimetre has been developed for standard weights.

In order that you may be kept entirely current on our investigations of material for standard weights, we now wish to advise that the National Bureau of Standards is directing its attention to the development of a stainless steel having a density of 8·0 grams per cubic centimetre and providing high corrosion resistance, nonmagnetic qualities, workable yet reasonably hard surface, and other significant properties. We presently are experimenting with a special steel that has been produced under consumable electrode vacuum melting, is a completely stable austenite, and with hardness typical of austenitic steels. The composition (nominal) is :

Carbon	0·10%
Magnesium	1·5%
Silicon	0·5%
Chromium	20·0%
Nickel	25·0%
Molybdenum	2·25%
Copper	0·2%
Iron	Balance

This material appears to be eminently satisfactory for mass standards and further experiments will be conducted prior to its general use in the United States.

The 8·0 g/cm<sup>3</sup> density is in line with present thinking of the National Physical Laboratory of England for mass standards of stainless steel.

M. W. Jensen,

Chief, Office of Weights and Measures,  
National Bureau of Standards,  
U. S. Department of Commerce.  
Washington.



**THE DOUBLE RIDE**  
By Francis Wallace

This picture is exhibited in the front window of his butcher shop by Mr. Ross Manolas who trades under the name of Benson and Crute, 91 Victoria Street, Bunbury, 184 kilometres south of Perth, Australia. The picture, which has amused innumerable visitors to this popular holiday and seaside resort for the last 25 years, has made his shop famous. It depicts one of the eternal problems of trade—cheating by dishonest traders and the redress sought by the vigilant purchaser. This scene, however, does not occur in Mr. Manolas' shop.

The picture was sent specially to *Metric Measures* by Mr. W. J. Joyce, a merchant and exporter from Fremantle. Mr. Joyce is a keen advocate of decimal coinage followed by the metric system for Australia. He wishes that all industries should abandon units and customs that are not decimal and interfere with streamlining of methods.

*Metric Measures* is grateful to both Mr. Manolas and Mr. Joyce for making it possible to publish this picture.

## **Standards News**

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*Indian standards which have a particular bearing on the change-over to the metric system are indicated here. Copies would be available from the Indian Standards Institution, Manak Bhavan, 9 Mathura Road, New Delhi or their Branch Offices at Bombay, Calcutta, Madras and Kanpur.*

### **Indian Standard Code of Practice for General Engineering Drawings (IS : 696—1960)**

Drawing office practice in India has generally been based on the British practice, though minor modifications have been made in certain cases to meet special requirements. In order to make the drawing office practice as uniform as possible in the country, and also to make it similar to accepted practices in other countries, the Indian Standards Institution has issued the Indian Standard Code of Practice for General Engineering Drawings (IS : 696-1960).

Pursuant to the introduction of the metric system of weights and measures, the Code which was originally issued in 1955 has now been revised incorporating the following other principal modifications :

- (a) Revision and enlargement of the section on dimensioning and tolerancing,
- (b) Enlarge ment of the section of welding, and
- (c) Bringing the surface finish practice in line with the practice current in other countries.

The Code, which should serve as an authoritative source of reference in matters associated with the preparation and interpreta-

tion of engineering drawings, is expected to serve as a valuable guide for engineering colleges and technical institutions. The Code has been divided into six sections and the main features of respective sections are given below :

**Section 1** Standard sizes of drawings sheets; layout of drawing sheets with typical illustrations; the title block and the necessary information to be supplied therein and folding of prints.

**Section 2** Various scales used in engineering, conventional lines, their thicknesses and usages, types and sizes of letters and numerals for drawings. A separate card giving the recommended thicknesses of lines with a slot in the middle to facilitate comparison with the actual lines drawn has been included.

**Section 3** Third angle projection recommended as the standard method of projection; the distinctive symbol in the title block for method of projection; arrangement of views; Conventional representation on common features and materials.

**Section 4** Principles of dimensioning; specifying tolerances on drawings, tapered features; Tolerances of form and position and the surface finish symbols with their roughness number in microns.

**Section 5 Typical illustrations on welding, fasteners and structural steel work.**  
**Section 6 Recommended abbreviations and graphs.**

The Code is available both as a complete volume comprising all the sections and as individual sections with the objective of assisting such of the users who may be interested in purchasing only sections of interest to them.

**The complete volume has been priced at Rs. 15.00 while individual sections are available at prices ranging from Rs. 3.50 to Rs. 8.00.**

**Indian Standard Specification for Water Meters (Domestic Type) (IS : 779—1961)**

The Indian Standards Institution has published a revision of IS : 779 Specification for Water Meters (Domestic Type) (Revised) which covers inferential (horizontal-flow) and semipositive types of water meters with threaded end connections and of nominal sizes up to and including 50 mm. The specification applies to both wet-dial and dry-dial meters.

This specification which was first issued in 1956 has been revised to incorporate the improvements which have taken place since then.

Metric system has been adopted in India and all quantities and dimensions appearing in this standard have been given in this system; however, size designations have been given in fps units also for facilitating reference to other standards relevant to this specification.

**Price: Rs. 3.00**

**Indian Standards Specification for Paper Sizes (IS: 1064—1961)**

The Indian Standards Institution has just published a revision of IS : 1064 Specification for Paper Sizes, which prescribes the requirements of printing, writing, wrapping and casing paper sizes, machine-made and hand-made.

The purpose of this standard is to rationalize and reduce the number of paper sizes with a view to achieving uniformity in the papers to be used for correspondence, production of book pamphlets and other allied matters; to facilitate the manufacture and sale of paper; and to co-ordinate the sizes for business lettering, card-index records, filing records and office furniture.

The standard which was originally published in 1957 covered only the trimmed sizes; and it has been revised so as to include the untrimmed sizes also.

It is hoped that producers and consumers of papers will now be able to adopt the metric sizes of paper which have been internationally recognized and have been found not only rational but also advantageous and economical in actual use.

**Price: Rs. 2.00**

**Indian Standard for Substances<sup>\*</sup> of Paper and Pulp Board (IS: 1763—1961)**

The Indian Standards Institution has published IS : 1763—1961 Specification for Substances of Paper and Pulp Board, which prescribes the substances in which paper (other than tissue) and pulp board shall normally be manufactured and stocked.

Paper and pulp board are being manufactured in a large variety of 'substances' and it is desirable to rationalize the series of substances so as to bring about a reduction of this uneconomical variety. The recommendation of the International Organization for Standardization to measure the substance by the weight in grams per square metre of the paper or board has been adopted in all Indian Standards for paper and board. This system involves least amount of calculation, does not depend upon the size or number of sheets in the ream and is in conformity with the country's change-over to metric system.

**Price: Re. 1.00**

**Indian Standard Specification for Self-Indicating and Semi-self-Indicating Counter Type Weighing Machines (IS: 1853—1961)**

The Indian Standards Institution has published IS : 1853—1961 Specification for Self-Indicating and Semi-Self-Indicating Counter Type Weighing Machines which covers the requirements of self-indicating and semi-self-indicating counter type weighing machines.

This standard is one of a series of Indian Standards on commercial weighing machines being prepared at the instance of the Standing Metric Committee, Government of India, in connection with the introduction of metric system of weights and measures in the country.

**Price: Rs. 1.50**

**Indian Standard Dimensions for Rolled Steel Bulb Plates (IS: 1863—1961)**

The Indian Standards Institution has just published IS : 1863-1961 Dimensions for Rolled Steel Bulb Plates. This standard lays down the nominal dimensions of hot rolled steel bulb plates conforming to IS : 226-1958 Structural Steel (Second Revision) and IS : 961-1957 High Tensile Structural Steel. Structural properties of the sections as calculated on the nominal dimensions are also included.

This standard is one of a series of Indian Standards being published by ISI under the Steel Economy Programme, the object of which is to achieve economy in the use of steel by establishing rational, efficient and optimum standards for structural sections; formulation of standard codes of practice for the design and fabrication of steel structures; popularization of welding in steel construction; and co-ordination and sponsoring of experimental research relating to the production and use of structural steel which would enable the formulation and revision of specifications and codes of practice.

Metric system has been adopted in India and all quantities and dimensions in this standard have been given in this system.

**Price: Rs. 1.50**

**Indian Standard Specification for Carbon Steel Bars, Billets, Blooms and Slabs for forgings IS: 1875—1961**

The Indian Standards Institution has published IS : 1875-1961 Specification for Carbon Steel Bars, Billets, Blooms and Slabs for Forgings, which prescribes the requirements for four grades of carbon steel bars, billets, blooms and slabs for forgings designated as Class 1, Class 2, Class 3 and Class 4.

Metric system has been adopted in India and all quantities and dimensions in this standard have been given in this system. However, for the sake of smooth change-over by December 1966, non-metric values have also been given wherever necessary.

**Price: Rs. 2.00**

**Draft Indian Standard Tables for Alcoholometry**

The Indian Standards Institution has circulated for comments draft Indian Standard Tables for Alcoholometry. The draft standard gives two tables, one containing temperature correction data, and the other including data at 15°C for specific gravity in vacuum, absolute density in vacuum and density in air and volume in litre corresponding to 100 kg (in air) of a mixture containing ethanol and water. The temperature correction tables have been based on a reference temperature of 15°C. With the help of these tables, it will be possible to obtain the percentage by volume of ethanol at 15°C in a particular mixture of ethanol and water from hydrometer readings taken at any temperature (0° to 14° C) other than 15°C. Examples have been given in the standard to illustrate the use of these tables.

The British Proof Spirit System of expressing ethanol content of spirits and spiri-

tuous preparations has been in vogue in our country for revenue purposes for many years; the trade and industry have followed the same system. With the adoption of metric system in the country and in view of other factors, it was found desirable to change-over to the method of expressing the percentage of ethanol by volume using centesimal hydrometers (alcoholometers) and pycnometers.

It is hoped that the adoption of this new system of alcoholometry in the trade and industry will be more convenient, practicable and rational.

**Draft Indian Standard Tolerances for ISO Metric Screw Threads (1.6 To 300 mm) and Gauging Practice for Metric Screw Threads**

The Indian Standards Institution has circulated for comments the following two draft Indian Standards :

- (a) Tolerances for ISO Metric Screw Threads (1.6 to 300 mm)  
and
- (b) Gauging Practice for Metric Screw Threads.

Based on the work of International Organization for standardization (ISO), an Indian Standard Dimensions for Screw Threads for General Purposes (Diameter Range 0.25 to 39 mm) was published in 1959 (IS : 1362—1959). As a result of further work at the ISO level, it has now been possible to prepare a draft Indian Standard Tolerances for ISO Metric Screw Threads (Diameter Range 1.6 to 300 mm) which will assist in obtaining the dimensions for the thread diameters covered in IS : 1330-1958 General Plan for Metric Screw Threads with ISO Profile (Diameter Range 0.25 to 300 mm).

The gauging practice outlined in the draft Indian Standard Gauging Practice for Metric Screw Threads will assist in gauging the screw threads of the dimensions given in the draft Standard Tolerances for ISO Metric Screw Threads (1.6 to 300 mm.). These two drafts, when published as Indian Standards, are expected to meet practically all the requirements of metric screw threads that will be used in the country.

### **CONTROLLERS IN STATES**

Please note the following CHANGES :

#### **Assam**

Shri G. Sharma,  
Controller of Weights and Measures,  
Gauhati,  
Assam.

#### **Laccadive, Minicoy and Amindivi Islands**

Shri M. Ramunni,  
Administrator,  
Laccadive, Minicoy and Amindivi  
Islands,  
Kozhikode.

#### **Madras**

Shri S. Moni,  
Controller of Weights and Measures,  
37, Spur Tank Road,  
Madras-31.

The following are the TELEGRAPHIC addresses of Controllers of Weights and Measures in States.

- (1) Kerala 'METRIC' KERALA
- (2) Gujarat 'DIRIND' AHMEDABAD
- (3) Maharashtra 'DINDUSTRY'  
BOMBAY

# Licenced Manufacturers, Dealers and Repairers of Weights and Measures (19)

*Metric Measures* has been publishing a series of lists of manufacturers, dealers and repairers of weights and measures, weighing and measuring instruments licensed by the Governments in the various States and Union Territories under Weights and Measures (Enforcement) Acts in their respective jurisdiction. This is the nineteenth list. The first list appeared in the March 1959 issue.

Progressively steps are being taken for licensing manufacturers, dealers and repairers in all States and further lists of licensees would be published in the *Metric Measures* as this work progresses

The number in brackets against the name of the State or Union Territory indicates the particular instalment number of the State or the Union Territory. The issues of *Metric Measures* in which previous lists appear are also shown suitably.

An analysis of the licensees, including the present list, shows that the total number of licensees in 14 States and 4 Union Territories is 993 manufacturers, 4353 dealers, 930 repairers. The details of published information are as follows :

Sl. No.	State/Union Territory	Licensees		
		Manufacturers	Dealers	Repairers
(1) Andhra Pradesh		40	84	31
(2) Assam ..	..	11	44	16
(3) Bihar ..	..	20	69	34
(4) Delhi ..	..	28	93	20
(6) Gujarat ..		109	578	132
(6) Himachal Pradesh		1	28	1
(7) Kerala ..	..	40	389	116
(8) Madhya Pradesh		115	496	9
(9) Madras ..	..	79	828	126
(10) Maharashtra ..		95	163	185
(11) Manipur ..		14	85	5
(12) Mysore ..		75	399	41
(13) Orissa ..	..	14	17	1
(14) Punjab ..		36	150	26
(15) Rajasthan ..		43	206	44
(16) Tripura ..		1	9	0
(17) Uttar Pradesh		207	515	88
(18) West Bengal ..		65	200	55
		993	4353	930

**DELHI (7)**

In the July and September 1959 and March, May and September 1960, and January 1961 issues of *Metric Measures*, lists of licensed manufacturers, dealers and repairers of weights and measures in Delhi area were published. The following is a list of manufacturers, dealers and repairers subsequently licensed by the Delhi Administration.

**Manufacturers**

Sl. No.	Name and address of Manufacturer	Details of Articles Manufactured
(1)	Ashoka Metal Works, 6663, Ahata Kidara, Bara Hindu Rao, Delhi.	Brass Weights (bullion and non-bullion) and metre measures.
(2)	Banarsi Dass Dev Raj, 261, Kamla Market, New Delhi.	Conical Capacity Measures.
(3)	Jai Bharat Engineering Co-operative Industrial Society Ltd., Tarzon House, 29/15, New Rohtak Road, New Delhi.	(a) Conical cap, Measures, Metric brass weights and beam scales Class C and D (b) Cylindrical capacity measures, (c) Metre measures.
(4)	Jansons Patent Scale Industries, IV/625 Vishwas Nagar, Delhi-Shahdara.	Non-flexible metre measures.
(5)	Raj Manufacturing Co. 44, Meenakshi Garden, Tilak Nagar, N. Delhi.	Conical Capacity Measures.
(6)	The Shahadra Aluminium Factory, G.T. Road, Delhi-Shahdara.	Milk Measures (Cylindrical Type)

**Dealers**

Sl. No.	Name and Address of Dealers	Details of Articles Sold
(1)	Banarsi Dass Dev Raj, 261, Kamla Market, New Delhi	Weights, Measures and Instruments for weighing or measuring.
(2)	Bhagwan Dass Aggarwal, 282/1, Subash Market, Kotla Mubarakpur, New Delhi.	Weights, Measures and Instruments for weighing or measuring.
(3)	Dalip Singh and Sons, 3726, Faiz Bazar, Darya Ganj, Delhi.	Weights, Measures and Instruments for weighing or measuring.
(4)	Delite Paint and Hardware Store, Roop Nagar, Near Petrol Pump, Delhi.	Weights, Measures and Instruments for weighing or measuring.
(5)	Dayal Singh Sons (Regd.) 117, Kamla Market, New Delhi.	Weights, Measures and Instruments for weighing or measuring.
(6)	Himmat and Co., 4047, Ajmeri Gate, Delhi-6 .. ..	Weights, Measures and Instruments for weighing or measuring.
(7)	Khanna Iron Stores, 6518, Fatehpuri, Delhi .. ..	Weights, Measures and Instruments for weighing or measuring.
(8)	Kundan Lal Nathi Mal, 2890/1, Bahadar Garh Road, Tehwara.	Weights, Measures and Instruments for weighing or measuring.
(9)	S Lall Singh Kesar Singh (Hardware Merchant) Bazar Sirkewalan, Delhi.	Weights, Measures and instruments for weighing or measuring.
(10)	Mittal Paint and Hardware Stores, A/4/2 Main Road, Krishna Nagar, Delhi.	Weights, Measures and Instruments for weighing or measuring.
(11)	Paul Light House, 49, Subash Nagar, New Delhi .. ..	Weights, Measures and Instruments for weighing or measuring.
(12)	Roshan Lal Prem Sagar, 21, Outram Lines, Kingsway-camp, Delhi.	Weights, Measures and Instruments for weighing or measuring.
(13)	Raja Ram Ved Prakash, 111, 115, Chhota Bazar, Shahdara	Weights, Measures and Instruments for weighing or measuring.
(14)	Sher Singh Ganga Pershad, 3556, Chawri Bazar, Delhi	Measures and Measuring Instruments.

## LICENSED MANUFACTURERS, DEALERS & REPAIRERS OF WEIGHTS & MEASURES (19)

### Dealers (Contd.)

Sl. No.	Name and Address of Dealers	Details of Articles Sold
(15)	Shiv Nath Rai Kanshi Ram, 386, Main Bazar, Subzimandi, Delhi.	Weights, Measures and Instruments for weighing or measuring.
(16)	Sunder Dass and Sons, 2336, Teliwara, Delhi-6 .. ..	Weights, Measures and Instruments for weighing or measuring.
(17)	M/s Swastic Metal Works, G.T. Road, Delhi-Shahdra	Weights, Measures and Instruments for weighing or measuring.

### Repairers

Sl. No.	Name and Address of Repairers	Details of Articles Repaired.
(1)	Ascharaj Lal and Co. 31100, Main Road, Shadipur, West Patel Nagar, N. Delhi.	Beam Scales Class C and D, Metric Weights other than bullion weights.

### Delete the following Licences :

### Manufacturers

- (1) Adarsh Engineering Works, 16/2522, Gali No. 8, Bedon Pura, Karol Bagh, New Delhi.
- (2) A. K. Corporation (P) Ltd., F. 18, Najafgarh Road, D.L.F. Area, Delhi.
- (3) Moudgil Metal Industries, 2020, Chaparpwala Kuan, Karol Bagh, New Delhi.

### Dealers

- (1) Adarsh Engineering Works, 16/2522, Gali No. Beadon Pura, Karol Bagh, New Delhi.
- (2) Banwari Lal Radha Kishan, 3635, Chawri Bazar, Delhi.
- (3) Chaman Lal Kesho Nath, Iron and Hardware Merchant, 1959 Lal Kuan, Delhi.

- (4) Dewan Chand Kaura Mal, VII/5055, Bazar Sirkiwalan, Delhi.
- (5) Kapila Brothers, Kapila Buildings, 3999—4000, Naya Bazar, Delhi.
- (6) H. C. Sen and Co., Fountain, Delhi.

### Repairers

- (1) Adarsh Engineering Works, Shop No. 2522, Gali No. 8, Beadon Pura, Karol Bagh, New Delhi.
- (2) Chawla Metal Works, G.T. Road, Shahdra.
- (3) Parbhav Repairing Works, 4486, Gali Jatwali, Pahari Dhiraj, Delhi.
- (4) Trilok Singh Vij and Sons, 63, Gaffar Market, Karol Bagh, New Delhi.

## GUJARAT (4)

In the March, September and November 1961 issues of *Metric Measures* lists of manufacturers, dealers and repairers in Gujarat were published. The following is a list of manufacturers, dealers and repairers of weights and measures subsequently licensed under the Bombay Weights and Measures (Enforcement) Act, 1958.

### Manufacturers

Sl. No.	Name and Address of Manufacturer	Details of Articles Manufactured
(1)	Maniar and Company, Outside Sarangpur Gate, Ahmedabad.	Measures (Tankers for Tank Carts).
(2)	Jainulbhai Abdulkadar and Co., Mota Bazar, Choksi Gali, Navsari.	Conical Litre Measures, Non-Flexible metre measures.

## Dealers

Sl. No.	Name and address of Dealers	Details of Articles Sold
(1)	Abbasbhai Taherali Ahmedabadwala, Cinema Road, Chevali Sheri Naka, Surat.	Weights, Measures, Weighing and Measuring Instruments.
(2)	Abdulhusein Badrudin and Co., Moti Bazar, Gondal ..	Weights, Measures, Weighing and Measuring Instruments.
(3)	Ajit Industries, Badi Para Main Road, Rajkot ..	Weights, Measures, Weighing and Measuring Instruments.
(4)	Amiji Sulemanji and Sons, Bazar, Kalawad (Sitla) ..	Weights, Measures, Weighing and Measuring Instruments.
(5)	B. R. Herman and Mohatta (India) Pr. Ltd., C/o Shri Jeevandas Damani, 106, Near Police Gate, Maninagar, Ahmedabad.	Weights, Measures, Weighing and Measuring Instruments.
(6)	Bhagvanbhai Raghubhai Mistry, Nava Para, Ghogha Road, Bhavnagar.	Weights, Measures, Weighing and Measuring Instruments.
(7)	Bhikhabhai Fulabhai Luhar, Kava Bhagol, Jambusar, Dist -Baroda.	Weights and Measures, Weighing and Measuring Instruments.
(8)	Chhapiwala Hardware Store, Kamalpura Road, Nani Bazar, Palanpur Dist. Banaskantha.	Weights and Measures, Weighing and Measuring Instruments.
(9)	Chinubhai Prabhulal Amin Pathak Chawl, Pilaji-Gunj, Mehsana.	Weights and Measures, Weighing and Measuring Instruments.
(10)	Dharamji Keshavaji Panchal, Behind Bazar, Dhandhuka, Dist. Ahmedabad.	Weights and Measures, Weighing and Measuring Instruments.
(11)	Dhirajlal B Shah, Sheth G.T. Road, Mandvi (Kutch)	Weights and Measures, Weighing and Measuring Instruments.
(12)	Durlabhai Narottambhai Patel, Nana Parsiwad, Bulsar, Dist. Surat.	Weights and Measures, Weighing and Measuring Instruments.
(13)	Gandhi Brothers, Old Shak Pith, Near Mahajan's Vanda, Mahuva.	Weights and Measures, Weighing and Measuring Instruments.
(14)	Gandhi Brothers, Lokhand Bazar, Bhavnagar ..	Weights and Measures, Weighing and Measuring Instruments.
(15)	Girdharlal J. Dodia, Via Vanda, Sultanpur ..	Weights and Measures, Weighing and Measuring Instruments.
(16)	Hasmukhlal Bhavarlal and Co., Near Jai Daharasher, Bensda, Dist. Surat.	Weights and Measures, Weighing and Measuring Instruments.
(17)	Harkchand Getagi and Co., Sardarbag, Bardli, Dist. Surat, Bardoli.	Weights, Measures, Weighing and Measuring Instruments.
(18)	I. N. Mistry, Opp. Parsichawl, Vyara, Dist. Surat ..	Weights and Measures, Weighing and Measuring Instruments.
(19)	Jay Hind Hardware Stores, Bazar, Dhansura, Dist. S.K.	Weights and Measures, Weighing and Measuring Instruments.
(20)	Kantilal Chhotalal Mody, Opp. Paravadi, Balashinor, Dist. Kaira.	Weights and Measures, Weighing and Measuring Instruments.
(21)	Kheralu Vepari Mandal, Bazar, Kheralu, Dist. Mehsana	Weights and Measures, Weighing and Measuring Instruments.
(22)	Luhar Chhaganlal Narandas, Gondra Chowk, Kodinar ..	Weights and Measures, Weighing and Measuring Instruments.
(23)	Maganlal Narnji Desai, Jalalpura Rd., Navsari, Dist. Surat.	Weights and Measures, Weighing and Measuring Instruments.
(24)	Mohanlal Bhavanidas, Kansara Bazar, Vapi, Dist. Surat	Weights and Measures, Weighing and Measuring Instruments.
(25)	Mohanlal Bhavanidas Kansara, Main Road, Bulsar, Dist. Surat.	Weights and Measures, Weighing and Measuring Instruments.
(26)	Mohanlal Jagsibhai Shah, Dhanera, Dist. Banaskantha	Weights and Measures, Weighing and Measuring Instruments.
(27)	Noorbhai Ganibhai, Rajula City .. .. ..	Weights and Measures, Weighung and Measuring Instruments.

Dealers (*Contd.*)

Sl. No.	Name and Address of Dealers	Details of Articles Sold
(28)	Ramanlal and Brothers, Juan Bazar, Idore, Dist. S.K. . .	Weights and Measures, Weighing and Measuring Instruments.
(29)	Safuddin Abdulhusein Katabjiwala and Sons, Virbhadrar Rd., Lunawada, Dist. Panchmahals.	Weights and Measures, Weighing and Measuring Instruments.
(30)	Saifee Hardware Merchant, Dudhia Talao Rd., Navsari, Dist. Surat.	Weights and Measures, Weighing and Measuring Instruments.
(31)	Sukhlal Devchand and Co., Bazar, Dharampur, Dist. Surat.	Weights and Measures, Weighing and Measuring Instruments.
(32)	The Indian Iron Industries, Ravdi Bazar, Sindhkaped Market, Shop No. 15, Ahmedabad-2.	Weights and Measures, Weighing and Measuring Instruments.
(33)	Valibhai Rasulbhai Meman, Bazar, Vadali, Dist. Sabarkantha.	Weights and Measures, Weighing and Measuring Instruments.
(34)	Yahyabhai and Co., Opp. Engineer's Office, Jamnagar.	Weights and Measures, Weighing and Measuring Instruments.

## KERALA (8)

In the November 1959, March and November 1960 and January and September 1961 issues of *Metric Measures* lists of licensed manufacturers, dealers and repairers of weights and measures in Kerala State were published. The following is a list of manufacturers, dealers and repairers subsequently licensed by the Government of Kerala under Kerala Weights and Measures (Enforcement) Act, 1958.

## Manufacturers

Sl. No.	Name and Address of Manufacturers	Details of Articles Manufactured
(1)	Alleppey Metal Industries, Near Stone Bridge, Alleppey.	Beam Scales (C & D Class) only.
(2)	Carpenters-cum-Blacksmiths Co-operative Society, Panangad, Trichur.	Dry Measures only.
(3)	Carmel Industrial Institute, North Road, Arnathukara, Trichur-3	Conical Measures only.
(4)	Chavara Block Artisans Industrial Co-operative Society Ltd, Thevalakkara, Quilon District.	Conical & Dipping Type Liquid Measures.
(5)	Gemini Metal Co, Quilon . . . . .	Capacity Measures (Liquid & Dry).
(6)	Hamson Industries, Pappinisseri, Cannanore District ..	Beam Scales (C & D Class) only.
(7)	Joseph Rodrigues & Sons, Metal Merchants, Jallor Road, Kasargod	Dry Measures only.
(8)	M. K. Mohammed Naina, Bharakath Metal Industries, Chalai, Trivandrum-1.	Dry Measures only.
(9)	The Mulanthuruthy Iron & Steel Industries Co-operative Society, Mulanthuruthy, Ernakulam	Beam Scales (C & D Class) only.
(10)	M. K. Nambiar & Co., Kallai Road, Calicut ..	Conical & Dry Measures.
(11)	Popular Industries, Robinson Road, Calicut-1 ..	Dry & Conical Measures.
(12)	Sabu Metal Industries, Malapallipuram, Chalakudy Trichur District.	Conical, Dry & Dipping Type Liquid Measures.
(13)	P Velayudhanasari, Kottungal Shop, Avalukunnu Jn, Alleppey.	Beam Scales ( C & D Class) only.

## Dealers

Sl. No.	Name and Address of Dealers	Details of Articles Sold
(1)	S. K. Aboobacker Hajee, Universal Stores, Camp Bazaar, Cannanore.	Weights & Weighing Instruments.
(2)	B. Aboobacker Kunju, Hardware & Paint Merchant, Big Bazaar, Quilon.	Weights, Measures, Weighing & Measuring Instruments.
(3)	P. A. Balakrishnan, General Merchant, Palayam Road, Calicut-1.	Weights & Measures, Weighing & Measuring Instruments.
(4)	Bhagavathi Perumal Pillai, S. P. Central Stores, Balaramapuram.	Weights & Measures, Weighing & Measuring Instruments.
(5)	Calicut Metal Mart, Near New Bus Stand, Calicut-1 ..	Weights & Measures, Weighing & Measuring Instruments.
(6)	C. K. Chathukutty, Ramachandra Stores, Palayam Road, Kozhikode.	Weights & Measures, Weighing & Measuring Instruments.
(7)	Gemini Metal Co., Quilon .. .. ..	Weights & Measures.
(8)	India Iron Foundry, Cochin .. .. ..	Weights, Measures, Weighing & Measuring Instruments.
(9)	G. Janardhana Pai, Hardware Merchant, Alleppey ..	Weights, Measures, Weighing & Measuring Instruments.
(10)	Jayaraj Foundry & Engg. Works, Malla Road, Tellicheriy.	Weights & Measures, Weighing & Measuring Instruments.
(11)	Jeevan Industries, Kottayam .. .. ..	Measures & Measuring Instruments.
(12)	Kurian Varghese, Hardware Merchant, Mattancherry ..	Weights & Weighing Instruments.
(13)	P. K. Kesava Pillai, Usha Metal, Mavelikara ..	Weights, Measures, Weighing & Measuring Instruments.
(14)	A. D. Kuriappan & Sons, General Merchants, Trichur	Weights, Measures, Weighing & Measuring Instruments.
(15)	P. Kunji Koya, Munikkatagem, Edigara, Kozhikode-3.	Weights, Measures, Weighing & Measuring Instruments.
(16)	Karnataka Traders, Cannanore Road, Calicut-1 ..	Weights, Measures, Weighing & Measuring Instruments.
(17)	G. P. Moideen, Metal Merchant, Robinson Road, Calicut	Weights & Measures, Weighing & Measuring Instruments.
(18)	T. J. Mammen, Thekkuveetil, Vadakkekara Village, Chennangannur.	Weights, Measures, Weighing & Measuring Instruments.
(19)	A. S. Mathai & Sons, Hardware Merchant, Changannassery.	Weights & Weighing Instruments.
(20)	Metrol Trading Syndicate, Bazaar Road, Mattancherry	Weights, Measures & Weighing Instruments.
(21)	M. Mohammed Ismail, Hardware & Tobacco Merchant, Kattakada.	Weights, Measures, Weighing & Measuring Instruments.
(22)	Palliveetil Mammed Koya & Bros., Bazaar Road, Cannanore.	Weights & Measures, Weighing & Measuring Instruments.
(23)	S. K. Padamanabha Shenoy, Merchant, Methala Village, Cranganore Taluk.	Weights, Measures, and Weighing Instruments.
(24)	A. Ramaswamy, Govt. Contractor, T. C. 17/86, Karamana, Trivandrum-2.	Bullion Weights and Weighing Instruments.
(25)	P. Ramachandran, Hardware Merchant, Balarampuram.	Weights, Measures, Weighing and Measuring Instruments.
(26)	Haji N P. Soopi & Bros, Stationery Merchants, Payyannur	Weights, Measures, Weighing & Measuring Instruments.
(27)	U. B. Sivadasan, Proprietor, Weights & Measures, Calicut.	Weights, Measures, Weighing & Measuring Instruments.
(28)	A Syed Mohammed, Thunduvila Veedu, Kohinoor Hardwares, Attingal.	Weights, Measures, Weighing and Measuring Instruments.
(29)	Tharayil Hardware Mart, High Road, Trichur ..	Weights and Measures.

LICENSED MANUFACTURERS, DEALERS & REPAIRERS OF WEIGHTS & MEASURES (19)

Dealers (*Contd.*)

Sl. No.	Name and Address of Dealers	Details of Articles Sold
(30)	C. M. Thomas, General Traders, Kalaketty, Kanjurapilly.	Weights, Measures and Weighing Instruments.
(31)	C. Thannu Pillai, Rice & Grains Merchant, Sabhapathi Koil Street, Chalai, Trivandrum.	Weights, Measures, Weighing and Measuring Instruments.
(32)	Usman Koya, Proprietor, Scales Repairing, Pandikada Road, Manjeri.	Weights, Measures, Weighing and Measuring Instruments.
(33)	K. P. Vareed & Sons, Hardware Merchant, Chalakudy Village, Chalakudy.	Weights, Measures, Weighing & Measuring Instruments
(34)	Zahida Crockery Stores, Alumkadavu, Ernakulam ..	Weighing Instruments only.
(35)	P. Zainudeen, Proprietor, Calicut Tin Works, S. M. Street, Calicut-1.	Weights, Measures, Weighing and Measuring Instruments.

Repairers

Sl. No.	Name and Address of Repairers	Details of Articles Repaired
(1)	M. Aboobacker, Hardware Merchant, Tellicherry ..	Beam Scales ( C & D Class) only.
(2)	S. A. Abdul Kadir, Kalluvettankuzhi Veedu, Karette, Churayinkil Taluk.	Beam Scales ( C & D Class) only.
(3)	Avery Co. of India (P) Ltd , Thamarakulam Road, Quilon.	All type of weighing machines,
(4)	M. D. Antony & Sons, Merchant, Market Road, Trichur	Beam Scales ( C & D Class) and Weights and Measures.
(5)	A. N. Appu, C/o Mercantile Industries, Market Road, Irinjalakuda.	Beam Scales ( C & D Class) and Weights and Measures.
(6)	M. N. Balakrishnan Nair, Gurukkal Veedu, Cherakkara, P. O., Tellicherry.	Beam Scales ( C & D Class) only.
(7)	N. Bhaskaran Achari, Vadakkedathu House, Kuripuzha, Perinad, Quilon.	Beam Scales ( C & D Class) only.
(8)	A. B. Cheekutty, Binny, Engineering Industries, Palluruthy, Cochin.	Platform Scales only.
(9)	K. P. Chacki, Kunnasseril, Kaduthuruthy, P.O., Kottayam Dist.	Beam Scales ( C & D Class) only.
(10)	K. Chellappan Achari, Palaparambu, Madom, Mullackal, Alleppey.	Beam Scales ( C & D Class) only.
(11)	V. Chellappan, Villayil Vilakom Veedu, Karamanai, Trivandrum-2.	Beam Scales ( C & D Class) only.
(12)	Hilal Traders, Main Road, Tellicherry .. .. ..	Beam Scales ( C & D Class) only.
(13)	Jose Zacharia, Madakacheril, Edathua P.O. .. ..	Beam Scales ( C & D Class) only.
(14)	P. R. Karunakaran Nayar, Sasidharanmandiram, Ettumanoor.	Beam Scales ( C & D Class) only.
(15)	B. Kannu Achari, Swaminath Industries, Chenthitta, Trivandrum.	Platform Machines & Salter's Spring Balances.
(16)	C. Kunhamoo & Co , Hardware Merchant, Tellicherry ..	Beam Scales ( C & D Class) only.
(17)	P. N. Moorthy, Swamy Natha Industries, Vadayattukkota, Quilon.	Beam Scales ( C & D Class) only.
(18)	Mighty Scales Co, Vadakkancherry, Cochin .. ..	Platform Scales only.
(19)	A.S. Mony, Money Industries, Virakupura Street, Fort, Trivandrum.	Platform Scales only.
(20)	Mukunda Agrl. Implements & Steel Trunk Works, Badagara	Metric Measures & Beam Scales.
(21)	C. K. Mukundan, Mukunda Agrl. Implements & Steel Trunk Works, Badagara.	Beam Scales ( C & D Class) only.
(22)	P. M. Mani, Sreekrishna Stores, Warriam Road, Ernakulam	Beam Scales ( C & D Class) only.

**Repairers (Contd.)**

Sl. No.	Name and Address of Repairers	Details of Articles Repaired
(23)	P. S. S. Narayana Swamy Nadar, Flour Mill, Kovilvattom Road, Ernakulam.	Platform Scales only.
(24)	R. K. Obi, Hindustan Scales Service, Cockalai, Trichur District.	Beam Scales (C & D Class)
(25)	Pallivettil Mammed Koya & Bros, 9/88, Tobacco Street, Calicut.	Weights, Measures, Weighing & Measuring Instruments.
(26)	P. C. Paily, Victory Engg. Foundry Works, Chungom, Alleppey	Weights, Measures, Weighing & Measuring Instruments
(27)	T. T. Pylunny, Royal Smiths, Kunnamkulam .. .	All kinds of instruments.
(28)	P. K. Raghunathan, Parathum Veedu, Palluruthy, Cochin-5.	Beam Scales (C & D Class) only.
(29)	P. Ramachandran, Hardware Merchant, Balaramapuram	Beam Scales (C & D Class) only.
(30)	M. N. Raghavan, S. N. Oil Mills, Chungom, Alleppey ..	Beam Scales (C & D Class) only.
(31)	K. Ramer, Babu Engg. Works, Court Road, Ponnani ..	Weights & Weighing Instruments except Platform Scales.
(32)	Scales & Services, Market Road, Cochin-2 .. .	All types of weighing instruments.
(33)	A. Shamsudeen, Mangathu, Putthen Veedu, Kilimanoor P.O.	Beam Scales (C & D Class) only.
(34)	V. Thankappan Achary, Ulladan Parambu Thiruvampady, Alleppey.	Beam Scales (C & D Class) only.
(35)	Tholath Iype Ittoop Guruvayur Road, Kunnamkulam ..	Beam Scales (C & D Class) only.

**II. The licences detailed below may be deleted**

Sl. No.	Licence No.	Name and Address of the Licencee
(1)	D. 55 ..	T. J. Varkey & Family, Irinjalakuda.
(2)	D. 31 ..	Money's Corporation (P) Ltd., T. C. 21/834, Sreekanteswaram, Trivandrum-1.
(3)	D. 65 ..	S. Ibrahim & Co., Chalai, Trivandrum.
(4)	D. 197 ..	S. Velayudhan Pillai, Maveli, Chavara P.O., Quilon.
(5)	D. 195 ..	Saraswat Corporation (P) Ltd, 12/75, Palliarkavu Road, P. B. No. 143, Cochin-2.
(6)	D. 115 ..	M. A. Gopalan, Stationery—Hardware Merchant, Kizhakambalam, Ernakulam.
(7)	D. 223 ..	K. K. Abdul Kadir, Merchant, Municipal Market, Ernakulam
(8)	D. 246 ..	G. S. Pai & Co, Jewellers, Broadway, Ernakulam.
(9)	D. 201 ..	A. R. Cockalingom Chettiar & Sons, Market, Alwaye.
(10)	D. 186 ..	V. P. Davis, General Merchant, Cochin-2.
(11)	D. 25 ..	P. V. Aippo & Sons, Alwaye.
(12)	D. 185 ..	P. H. Chidambara Iyer, 15/8885, 70 ft Rd., Ernakulm.
(13)	D. 89 ..	R. Varer & Sons, Jewellers, Kozhikode.
(14)	D. 107 ..	M. Raghavan, Stationery Merchant, Kozhikode-7.
(15)	D. 111 ..	Union Stores, Kakkodi, Kozhikode.
(16)	D. 179 ..	Devi & Co., Big Bazar, Calicut-1.
(17)	D. 110 ..	Sukumaran, Kodal Amsom, Kozhikode.
(18)	D. 221 ..	K. C. Kuruvilla, Tobacco Merchant, Chengannur.
(19)	D. 117 ..	P. M. Samuel, Hardware Merchant, Pathanathitta.
(20)	D. 141 ..	C. P. Aboobacker, News Agent, Calicut.
(21)	D. 152 ..	P. K. Pilo, Bonny & Co., Count Road, Calicut.

## MADRAS (6)

In the November 1959 and March, September and November 1960, and January 1961 issues of Metric Measures, lists of Manufacturers, dealers and repairers of weights and measures were published. The following is a further list of dealers since licenced by the Government of Madras under the Madras Weights and Measures (Enforcement) Act, 1958. (The list of manufacturers as also repairers will be published in due course.)

## Dealers

- (1) S. K. Abdul Azees, 3, Sambudoss Street, Madras-1.
- (2) S. K. M. Abdul Ghani, M/s India Hardware Stores, Bazaar St., Virudhachalam.
- (3) O. K. Abdul Gany Rowther, 16, South Fort St., Virudhachalam.
- (4) Ayyanediammal, M/s Saraswathi Stores, Hardware and Paint Merchant, Arni.
- (5) A. Abdul Latheef, Paint and Hardware Merchants, 149-A, No. 2, Road, Mayavam
- (6) K. A. Abdul Khadersons, Hardware Merchants, 73, Big Bazaar, Street, Mannargudi.
- (7) A. K. Abdul Lathief, 77, Gandhiji Road, Tanjore Dist.
- (8) O. K. Abdul Gani Brother, Iron and Hardware Merchants, Bazaar St, Pecrarooran, Tanjore Dist.
- (9) S. K. M. Abdul Gani Routhier, Bazaar Street, Perambapur
- (10) Abdul Kader and Sons, No. 7, Angappa Naiken Street, P.B. No 29, Madras-1.
- (11) J. Abdul Majeed, 15/38 Maria Thotham, N.H. Road, Coimbatore.
- (12) S. M. Abdul Rahman, No 119, North Veli Street, Madurai
- (13) H. Abdul Rahi, Proprietor, Nov and Sons, 33, Chinna Kaizer Street, Chidambaram.
- (14) Abdul Rasheed Khan, S/o Mathar Rowther, Messers Kassuri Store, 5/57, Gandhijee Road, Paramakudi.
- (15) M. Abdul Subhan Sahib, 22, Big Bazar Street, Tirupathur, (N.A.).
- (16) B. A. Abdul Salem, Proprietor, Dillagi Stores, Shevapet, Salem-2.
- (17) A V Abdulabhyo and Co, No. 319, Linghi Chetty Street, Madras.
- (18) S. K. S. Abdul Sathar, S/o Syed Abdul Khadar, 54, Sivananda Street Lane, T. V. Malai, N.A. Dist.
- (19) A. Adam Sahib, 260, Big Bazar, Kumbakonam.
- (20) P. T. V. S. Ahmmmed, 372, West Bazar, Tirunelveli pettai-4.
- (21) V. A. Aliyanadar and Sons, 29, 30 and 31, Elukadai Agraharam, Madurai
- (22) M. Ahamad Rowther, 102, Azad Road, Vijayapuram, Tanjore Dist.
- (23) C. Akasaperumal Pillai, N.M.C. No. 6/796, Kottar, Nagercoil.
- (24) A. Amaldoss, Stamping Clerk, Taluk Office, Mudukulathur.
- (25) A. Ambiga and Brothers, 29, Thandavarayagounder, St. Villappadi, Vellore, N. A. Dt.
- (26) V. A. Ammer Batcha and Co., Kumbeswar South, Kumbakonam.
- (27) R. T. Amirthalinga Nadar, No. 148, North Car Street, Tiruchendur.
- (28) Anandabadmanabhan Prop , Prakash Trading Company, Iron and Hardware Merchants, Salem-2.
- (29) G. Annathurai, Big Bazar Street, 1/67/2, Tirumayalam, Madurai Dist.
- (30) S. Anthomswamy, Solomon Foundry, Nagapathinam.
- (31) M. S. Annamalai Chetiar and Sons, 14-15, Ramalinga Mudaliar Road, Vijaiyapuram, Tiruvarur.
- (32) K. A. T. A. Annamalai Nadar, Hardware and Paint Merchants, 113/High Road, Tirunelveli Junction.
- (33) L. Annaiya Chetiar and Sons, 141, Bazaar Street, Pollachi.
- (34) A. Anantha Nadar, Kalikaulai, Vilavankode, Taluk
- (35) Andhra Scientific Co., Ltd , 4, Blacker's Road, Mount Road, Madras-2.
- (36) A. K. M. Andukoudam Chetiar and Sons, No. 24/9, Big Bazaar St., Paramakudi, Ramnad Dist
- (37) S. K. Arjunan, C/o Karuppiah Pillai (MS), 108, Puthitope Road, Madurai—10, Shop 29, Tahsildar pathvasal St , Madurai.
- (38) Aruldoss and Brother, Jayankondam, Tiruchirapalli Dist.
- (39) S. Arunachalam, Vadassery, Nagercoil.
- (40) Anthalingam Metal Industries, 650, Adyar Street, Kandunganagar, Ootacamand.
- (41) S. Anthonswamy, Prop. Solomon Fdy , Nagapathinam.
- (42) T. B. Arumugam, 1-A Telegraph Abboy Naidu Lane, Kondithope, Madras-1
- (43) S. V. Arabaha Rowther and Sons, No. 413/1, Dundigal Road, Oddanchatram.
- (44) R. Apparswamy, 103, Mannady Street, Madras-1.
- (45) Arcot Dorairajan, Pro. Sheffield Scales Co., 42, Coral Merchant Street, Madras-1.

**Dealers (Contd)**

- (46) N. Arumugam Pillai, Hardware and Paint Merchants, No. 82, Swami Sannathi, Tenkasi.
- (47) V. Arthanari Mudaliar, 186, Netaji Road, Erode.
- (48) G. Audikesavalu, The Madurai General Mills Stores, 12 Town Hall Road, Madurai.
- (49) Avery Company of India Private Ltd., 16-17 Armenian St., Madras-1, Branch at 6/135, Trichy Road, P.B. No. 215, Coimbatore-1.
- (50) Ayyanediammal, M/s Saraswathi Stores, Hardware and Paint Merchant, Atti.
- (51) Azad Commercial Corporation, Hardware Merchants, No. 183, Abdul Rahman Road, Koothanathur.
- (52) R. Anthoniswamy, S/o C Alice Thevar, Mission Hill, Cornoor R.S.
- (53) S. R. S Balakrishna Nadar Sons, No. 41, Tenkasi Road, Rajapalayam.
- (54) G. P. Balakrishnan Chetiar, Bazaar Street, Gobichettipalayam, Coimbatore.
- (55) K. Balasubramanyam, Hardware Merchants, 18, West Sannadhi Street, Chidambaram.
- (56) C. Bashiam, Selvi Industries, 145, Oppana-kasasi Bharat Mechanical and Engineering Works, Coimbatore, Keelavur, Tukkoilu: Shop, Hospital Road, Tukkorur.
- (57) M. Bakhusdeen, 114, Big Bazaar St., Tirumangalam, Madurai Dt.
- (58) M. Baliah Nadar, M/s Dhinakaran Stores, 1/146, North Car Street, Tiruchandur.
- (59) Barevi Engineering Works, 37, French Chopal Road, Tuticorin.
- (60) M. Baliah Nadar, M/s Dharakaran Stores, 1/146, North Car Street, Tiruchandur.
- (61) D. Bahi, 2163, Sivayar Garden, 1st Street, Tanjore.
- (62) Bahi Shoe Mart, No. 3, Main Bazar, Salem.
- (63) K. P. Beskarapandiam, Big Bazaar St, Mirumangalam.
- (64) K. M Batcha, Caltex Dealer and General Merchant, 59, Bazaar Street, Wandiwash, North Arcot Dist.
- (65) A. Bhaghat and Co., Hardware Merchants, Shevapet, Salem-2.
- (66) P. Bhakthavatchalam Naidu, 39, Vencatachala, Mudali St., Madras-3.
- (67) M/s A. Bharat and Co., Iron and Hardware Merchants, No 185, Main Road, Shevapet, Salem-2.
- (68) T. N. Beemarajai, No. 26, Pullakkottai Road, Virudhunagar, Ramnad Dist.
- (69) Bravi Engineering Works, 37, French Chafel Road, Tuticorin.
- (70) Brite Engineering Company, 199-B, Ward No. 25, Opposite to Police Quarters, Nagercoil.
- (71) B. J Brothers, 703, Rangai Gowder St. Coimbatore-1.
- (72) Business Emporium, Hardware and General Merchants, Main Road, Methupulayam.
- (73) K. Chelladurai, Hardware Merchant, A. K. N. Perumal Street, Marthamadam, Vilavancode, Taluk.
- (74) A. N. Chellappa, Hardware and Paint Merchant, No. 34, West Car Street, Tirunelveli Town.
- (75) Coimbatore Machinery and Metal Mart, 12/2A, Frazer Square, P.B. No. 303, Coimbatore.
- (76) Chiwanlal and Co., 6, Sunkurama Chetty St., Madras-1.
- (77) Chinnaiah Stores, 352-C, Main Road, Melur.
- (78) T. Chakrapani Chetty, No. 18, Rasappa Chetty St., Madras-3
- (79) C. Chandravarman, Musiri, Tiruchi Dist.
- (80) S. Chandrasekhara Gupta & Sons.
- (81) V. Chandra Prakasa Nader and Co., Hardware and Paint Merchants, Clock Tower, 58, Palakarai Road, Trichi-8
- (82) Chandra Agencies, (Prop. T.R.N. Chandran), 12/71, V.C.V. Layow, R. S. Puram, Coimbatore-2.
- (83) S. Cheillah, S/400, G. Bungalow Street, Sankerpust, Tirunelveli Dist
- (84) K. Chenniappan, S/o Shri P. Kamaraswamy, No. 89, Ward No. 2, Tiruchengode Road, Pallipallayam, P.O. Salan Dist.
- (85) C. Chidambaram Pulai, 31/8, Old Kanya-varpalayam, Madurai.
- (86) S. M. R. M. Chidambaram Pillai and Co., Kumbeswar South, Kumbakonam.
- (87) M. Chidambara Nader, 162, Greatcotton Road, Tuticorin.
- (88) S. Chidambaram Pillai, Merchant, 48-A, North Car St., Dindigul.
- (89) S. K. S. Chinathurai Nadar, 268, Great Cotton Road, Tuticorin-1.
- (90) M. R. Chinayaraja, No. 203-A, Main Road, Ambasamudram, Tirunelveli Dist.
- (91) V. K. Chodanathan Hasur, Salem Dist.
- (92) M. Chockalingam Chetiar and Sons, Hardware and Paint Merchants, No. 2, Road, Mayuram.
- (93) P. M. Chokkanathan Chetiar, Saraswathi Store, 41-A, Bazar Street, Tindivanam,
- (94) N. Damodaran, Radhakrishna Nilayam, Railway Station Road, Trivellore.
- (95) N. Damodaran Radhakrishna Nilayam, Railway Station Road, Tiruvellore.
- (96) K. R. Damodaran, Gouri Scales, 1/2, Ellam-mankoil St., West Mambalam, Madras-17.
- (97) N. C. Dasappa, D. V. Sappa and Co., Mount Road, Conoor R. S.
- (98) S. M. M. Danood Batcha Rowther, Kallakattar, South Karaikudi.
- (99) S. Desikan, S/o D. Sreenivasa Chetiar, 129, Car Street, Tiruvannamalai.
- (100) S. A. T. Devaraja Chetiar, 7/221, Big Bazaar Street, Paramakudi, Ramnad Dist.

**Dealers (Contd.)**

- (101) T. E. Dhanapal, 67, Laurance Road, Tirupapuliyur, S.A. Dist.
- (102) P. Dhanapal, Rasappa Chetty Street, Madras-3.
- (103) V. Dharmaiya Chetty, 10 and 11 Chetty St., Trivellore.
- (104) Nadar, M/s V. A. Kanda Nadar and Sons, 43, Amman Sannadhi St., Madurai.
- (105) G. Doraiswamy Mudaliar, 24-B Kasikara St., Tiruvalipuram, N. A. Dt.
- (106) E. Doraiswamy, The Madurai General Mill Stores, No. 27-C Mukurnalla Muthur Street, Madras-1.
- (107) P. Doraiswamy, S/o Peechimuthu Naidu, Good Shed Road, Pollachi.
- (108) Eastern Trading Co., 45, Linghi Chetti Street, Madras-1.
- (109) Eastern Trading Company, 156, B. South East St., Madurai.
- (110) M. Eduwalai Natar, 39, Vijaya Vigneswaramkoil, St., Choolai, Madras-7.
- (111) C. A. Gabakotwala and Co. (Private) Ltd., 18, Amarian Street, Madras.
- (112) T. S. Ganapathi Mudaliar, Sri Kumaran Timber Depot, 40-A Bazaar St., Tindivanam
- (113) Gartie and Co. Private Ltd., 22, Errebalu Chetty St., Madras-1.
- (114) Geetha Scales, N. Sriramalu, 11, Devaraja Mudali St., Madras-3.
- (115) R. A. Ghani, No. 46, Bazaar Street, Nagore
- (116) A. V. K. Gold Merchants Association, 46, South Avani Moola St., Madurai.
- (117) V. S. M. Gopala Krishnayar and Sons, 181, East Gate, Madurai.
- (118) Govindarajalu, 69, Pedariarkoil Street, Madras-1.
- (119) R. Gopalakrishnan and M. G. Narasinha, 18/919 Jawahar Bazaar, Hardware Merchants, Karur.
- (120) Gopala Krishna Pillai, 226, Bazaar Street, Villupuram.
- (121) Gordon Woodroffe and Co. (Madras) Private Ltd., 1/21, North beach Road, George Town, Madras-1.
- (122) B. Govindarajah and Company, Hardware Merchants, Pollachi.
- (123) P. Govindarajan, S/o Ponuswami Pillai, 108, Big Bazaar St., Needamangalam.
- (124) Shrimathi Gouhar John, Door No. 90, Ward 17, Janab Hakim Road, Coimbatore.
- (125) K. V. N. Gonnda and Co., Perudurai (Agent) Southern Roadways (Private) Ltd., T.V.S. Madurai
- (126) Gudiyattam Hardware Mart, Munaff Buildings, Santhapet, Gudiyattam.
- (127) J. M. Gurunamasivayam, S/o P. V. J. Muniswamy Chettiar and Co., Sevaganga Nadu Street, Jainkondacholapuram.
- (128) T. A. L. C. Guruswamy Nadar, Timber and Iron Merchants, P. B. No. 6, No. 112/10, Hospital Road, Ramanathapuram Dist.
- (129) A. Govinda Chettiar, Agent, Gandhi Ashram Khadi Bhandar, Mettur Dam Post, Salem Dist.
- (130) A. S. M. Guruswamy, No. 284, East Masi Street, Madurai.
- (131) V. V. Govindaswamy Nadar and Sons, Hardware and General Merchants, Arantangi, Tanjore Dist.
- (132) Hindustan Hardware and Paint Mart, 37-38, Rasappa Chetty Street, Madras-3.
- (133) Hussainbhai Hardware Syndicate, 102, Mount Road, Coonoor.
- (134) Honorary Secretary, The Rajapalayam Chamber of Commerce, Rajapalayam, Ramnad Dist.
- (135) Happy Stores, 203/205, East Bazaar Street, Udangudi, Christianagarai P.O. Tirunelveli.
- (136) Industrial Machine Tools Company, 25, P. P. V. Nandevanam St., Virudhunagar
- (137) Isaac and Son, 329/2, Main Road, Rajagudi, Tirunelveli
- (138) Ibrahim Stores, Big Bazaar, Pudukottai
- (139) Jothi Engineering Works, B-3 and 4 Industrial Colony, K. Pudur, P.O. Madurai-7.
- (140) N. Jayaraman, Arunugam Tinker Works, No. 3, Kachaleesvara Fort St., Coimbatore.
- (141) S. Johnson, S/o Shri S. P. S. Dotai, C/o Shri Irudhayanathan Iron Shop, Big Bazaar, Ramanathapuram.
- (142) Jayanath Bros, 120, Purasawalkam High Road, P B 477, Madras-7.
- (143) P. C. Jayakumar, S/o Sri P. Kumaran, M/s. Jayakumar & Co., Chamundi Hall, Ettonues Road, Ootacamund.
- (144) Jayshree Engineering Works, Private Ltd., 154, Nambiappa Naicker St., Madras-3.
- (145) Jayshree Engineering Works, 1616-B, Bazlullah Street, T Nagar, Madras-17.
- (146) Jayshree Engineering Works, (P) Ltd., 16, Bazlullah Road, T. Nagar, Madras-17.
- (147) N Jayaraman Chettiar & Bros., Bazaar Street, 6616.
- (148) V. Jagannath Chethiar & Co, 6/454, Amman Sannadhi, Pariamakudi
- (149) Kamak Janaki Ammal, Prop., The Vijaya Agencies, 14, D. North Car Street, Tirunelveli-1.
- (150) Kamak. Nataraja Nadar, No. 102, High Road, Tirunelveli, Jn, Tirunelveli
- (151) Krishnamurthi Brother's Jewellers & Goldsmith Tools Merchants, Pudukottai.
- (152) A. Kuttubudheen, No 312, East Masi Street, Madurai.
- (153) Kalappa Nadar, Hardware Merchant, Sandai Bazar, Rajapalayam.
- (154) T.M.A. Kuppuswamy Chettiar and Sons, 2 & 10, Thottumkuraru St., Madurai-1.
- (155) P. S. Khaya Mohideen, Noorjehan Industrial Works, Hardware Merchants, Pudukottai.

**Dealers (Contd.)**

- (156) K. P. Krishnamoorthy & Bros., Raji Poonnamal Road, Mahalipatti, Madurai-9.
- (157) S. Kandeswamy Pillai, No. 101, Bazaar Street, Uttamapalayam.
- (158) S. Kandeswamy Pillai, No 101, Bazaar, Street, (a) Uttamapalayam.
- (158) G Kuttalingam Brothers, Jewellers, Cape Road, Nagercoil.
- (159) V. Krishnaswamy, No 4, Bazaar Street, Kaspa, Vellore.
- (160) R. Karnaiyan, Iron Works. No. 48, Kuruvian Tank Street, Tiruchi.
- (161) D. Kuppuswamy, Chelly & Company Hardware Paints and Electrical Phavapet Salem-2.
- (162) S. R. Krishnamoorthy, Chettiar, 13-A West Car Street, Chidambaram.
- (163) V. Krishnamurthi, C/o Sri O. N L. Venkatrama Chettiar, 76, Bazaar, St., Bhuvanagiri.
- (164) D Kolandai Chetty, S/o Sri R N. Doraiswamy Chettiar. M/s. Srinivasa Medical Stores, 99, Gurukhal St., Tiruchengode.
- (165) S Kannappa Pillai & Co., 4, Perumalmudali, St. Sowcarpet, Madras-1.
- (166) M. K. N. D. Kasiraja Nadar & Co , 373 to 375 Big Bazaar, Virudhunagar
- (167) M. K. N D. Kasiraja Nadar & Co., 248, East Masi St., Madurai
- (168) Kanaiappa Chettiar Sons, T S No. 1298, Big Bazaar St., Nagapattinam.
- (169) Krishna & Co., No. 8, Mailam Chanthai, Tiruchi
- (170) A A Krishna Rao, India Stores, Coimbatore-2.
- (171) T. K. Thondru Raja, Cumbun Road, Theni, Madura Dt.
- (172) K. P. Krishnamurthy, Chettiar, Karur
- (173) Smt. Krishnammal, 11, Ansari, Street, Udumalpet
- (174) B.A Kandesami, Papparapatty, P O Dharmapuri, Salem Dist.
- (175) M. Kothaiporumal, 482, Big Bazaar St., Tiruchirappalli.
- (176) T. K. Krishnan, 111/112 Bazaar, St., Pollachi.
- (177) A. Krishnaswamy Raja Partner, Krishnaram & Co., Rajapalayam.
- (178) S. S. Krishnaswamy Mudahar, No. 18-19 Long Bazaar, Vellore.
- (179) P V. Krishnan & Son, New Royal Engineering Works, 32/6 Katpadi Road, Vellore.
- (180) V. K. Krishnan, The South Zone Machine Works, 43, Commissary Bazaar, Vellore.
- (181) E. N. P. Kastiviswanathan Chettiar and Sons, Hardware Merchant, Shevapet, Salem-2
- (182) C. Kuppuswamy, Gandhi Metal and Alloys, R. V. Industries, Avaramp Palayan Road, Prelamedu, Coimbatore-3.
- (183) E. R. C. Krishna Chettiar, Hardware Merchants, 103, Big Bazaar Street, Dharpuram, Coimbatore Dist.
- (184) M. Krishnamurthy, Industry & Commerce, Publication, 154, Bazaar Street, Pollachi.
- (185) P. P. Krishnan, Merchant, N. M. C. No. 9/231, Cape Road, Kottar.
- (186) Karthikeyan & Co., Iron & Hardware Merchant, 129-130 Velayakara Street, Erode.
- (187) R. Krishnan C/o Sri L. Ramalinga Chethiar, 2, Sembamoorthy, Josher Lane, Pollachi.
- (188) K. Kalanithi, Colombo Mart, 200/3 Market St., Sivaganga.
- (189) A. N. Kuppuswamy Chethiar, S/o Sri R. Natesa Chetty, V. Sambondan Pillai, S/o Shri Varadaraja Pillai, Kumbakonam, Kumbeswar Sanmihdi.
- (190) Kitabhai & Co , S/o Mulla Jevajee, 10, Saigananach St, P. E 1643, Madras-1.
- (191) K. Kaliappan, Tiruppur Road, Udumalpet.
- (192) Smt. Kothaipamal, W/o Late G. Bangaru swami, Srivilliputhur.
- (193) M. Krishnamurthy Rao, S/o Sri P. V. Madhava Rao, No. 7, Trunk Road, Khadkpet, Vaniambade
- (194) H. P. Lakshmana Rao, 33/6/3 Bazaar St., Miruchengode, Salem District.
- (195) A. S. A. N. Lakshmana Pathar, Iron Vessels Merchant, Big Bazaar Street, Kumbakonam.
- (196) Lakshmi Engineering Works, 138, Demollows Road, Perambur Barracks, Madras-12.
- (197) P. S. K. Lakshmanan, S/o, Sri P. S. Kaliappanadar, Tirunelveli Junction
- (198) R. Lakshmanan, S/o Sri S. Ramakrishna Mudaliar, 26, Masilamani Street, Vellore.
- (199) Lakshmi & Company, Iron & Paint Merchants, Market St., Vijayapuram, Post, Tiruvarur.
- (200) H. P. Lakshmana Rao, 33/A/3 Bazaar St , Tiruchengode, Salem Dist.
- (201) B. Lakshminarayanan Gupta, Door No. 18, Ward 3, Bazaar St., Mushiri, Trichi Dist.
- (202) T. Loganathan, No. 59, Nyniappa Naicker Street, Madras-3.
- (203) Latheef & Brothers, Hardware & Paint Merchants, Vijayapuram, Tanjore Dist.
- (204) S. Madaswamy Asari, Subramaniapuram Street, Tiruchendur.
- (205) A. Mohamed & Co., No. 313, Linghi Chetty Street, Madras-1.
- (206) Modern Coffee Works, No. 296, Jawahar Bazaar karur, Tiruchirappalli Distt.
- (207) Munekrishnan Chetty, No. 2/135, Gandhi Road, Krishnagiri.
- (208) A S. Moorthy, No. 11, A.N.K. Naicker Street, Alandur, Madras.
- (209) A Muthuswamy Achary, No. 115/5 Muthu Pillai Street, Nanguneri.
- (210) K. A. Mohamed Jaffer, No. 101-A Ramalinga Mudaliar Road, Vijayapuram, Tiruvarur.
- (211) S. Muthuswamy Asari, No. 1436, Salem Road, Saukar.

**Dealers (Contd.)**

- (212) S. Mohideen, Maluk Mohamed Hameam Store, Kalivakkavila Vilavankode Taluk, Kanyakumari.
- (213) A. P. Marappa Chethiar, Brass Vessel Merchant, No. 36, Mani Bazaar, Ooty.
- (214) M. Paramasivam & Son, Servakaram, Puthur, Street, Shencottah.
- (215) T. A. Marimuthu—4—17, West Bazaar Street, Gurusampalayam, Salem Dist.
- (216) V. Mahadevan, Managing Partner, Gowri Corporation, Pattamangala Street, Mayuram
- (217) Mustafa Kamal, 2/133, Seetha North St., Tirupathur, Ramnad Dist.
- (218) V. S. Meera Pillai, Chetti Vilayathu Veedu, Thenagapputtam, Vilavancode Taluk, Kanyakumari Dist.
- (219) Masanandar & Co., 330, West Masi St., Madurai.
- (220) Mariappa Nadar, Hardware Merchants, Rajapalayam.
- (221) S. R. Muthuswamy Gounder, 88, F. 5/19, Palladam Road, Tiruppur.
- (222) M. S. Manickam & Co., Mill Road, Coimbatore
- (223) N. Mohideen Khan Sahib Sons Timber, Tiles & Hardware Merchants, Tiruppur.
- (224) R. Manthiramoorthy Grocery Merchant, Kulathoor, Tirunelveli Dist.
- (225) P. H. Mohammed Nasiruddin, Palakarai Road, Tiruchi-8.
- (226) K. M. Mohammed Saheb & Co., No 263, Lingh Chetty St., Madras-1.
- (227) Kuthu Baboothmull Mangilal, No. 14, Kasi Chetty St., Madras-1.
- (228) A. Mookiah Achary & Brother, Thiruthangal Road, Sivakasi.
- (229) K. M. S. Mohammed Yusuff Rowther, General Merchants, Arantangi.
- (230) P.S.G. Mill Stores, 42-A Mahal Vadampokk St., Madurai.
- (231) K. O. Mohideen & Brothers, Hardware Merchants, Vadaseri, Nagercoil. Kanyakumari Dist.
- (232) J. S. Mehta Precision Scales—Weights & Allied Agencies (Prop. Mehta & Bros, Bangalore-3) Sardar Bhavan, 73/83 Dovraj Mudali Street, Madras.
- (233) S. Muthu Asari, S/o Sri M Subban Achari, 153, Railway Fieder Road, Sattar.
- (234) V. G. Subramanian, S/o Sri V. Gopala Thevar 107, Rangakonar Street, Coimbatore.
- (235) Murugan Trading Company, 25, Arunachala Asari St., Salem-1.
- (236) N. M. M. Mohammed and Usuff, Messrs Manchi Abbas and Sons, High Road, Tirunelveli
- (237) S. Manickavasajam Pillai, 5/4 Vellirani St., Puhangudi.
- (238) Modugan Govardhanan Chetty, 128, Stewart-pels, Tiruttani.
- (239) K. P. B. Manian, M/s. A.R.S Stores, 69, Gandhi Road, Manuargudi.
- (340) Madras Scales Company, No. 11-A Noor Veeraswami Iyer St., Nangambakkam, Madras-6.
- (341) S. Mariadass, S/o Sri S. P. S. Dorai, 2/310 Gandhi Road, Paramakudi.
- (342) K. S. Mariappan, S/o Sri L. P. Sankaranarayanan, Main Road, Pathveeranpatti.
- (343) Madras Commercial Corporation Private Limited, 1/55 Mount Road, Madras-2 Shop 247, Angappa Naicken St., Madras-1.
- (344) C. C. Madhavan, Jaya Stores, Market, Ootacamund.
- (345) T. K. Muthia Pillai & Sons, Railway Cross Road, Mayuram.
- (346) E. Mohamed Hussain, No. 317, Block No. VIII Commercial Road, Ootacamund.
- (347) R. Michaelswamy, 1/10 Vincent Road, Kottaymedu, Coimbatore Dist.
- (348) Mysore Engineering Corporation, 79/10 Sem budoss St., Madras-1.
- (349) Masseys Prop : Rabindranath, Father's Name, Hanso Raj, 4B, 4C, North Railway Terminus Road, Royapuram, Madras.
- (350) M.A. Manicka Nadar & Co., 16, Great Cotton Road, Tuticorin.
- (351) B. Mohammad Ismail Sahib, Big Bazaar South Main St., Prp Musthafamart, Iron Merchant.
- (352) Madaswamy Achary, S/o Adaikalam Achary, Muthu Pillai St., Nanguneri.
- (353) M V Mithaval Pillai, General Merchant, P. B. No. 94, Thandicamber Road, Dindigul.
- (354) R. Malayappan & Co., 1747/F2, High Road, Tirunelveli Town.
- (355) K. M. Malayandi Chettiar Sons, Brass & Vessel Merchants 83, Bazaar Street, Pollachi
- (356) M. S. Mohammed Kasim, Prop M. S. Mohammed Kasim & Sons, 30, Manuady Street, Madras-1
- (357) P. Munuswamy Naidu, 1/76, Govindappa Naicken Street, Madras-1.
- (358) A. Mohammed Ali, Hardware Merchants, Bazaar Street, Kuttalam.
- (359) S. Ranichavasagam, 148, Big Bazaar Street, Manargudi.
- (360) M. Padmanabhan, General Industries, Bus Stand, Thuckali Kalkulam Taluk, Kanyakumari Dist.
- (361) A. Munia Pillai, 26-C West Street, Madurai.
- (362) R. P. Narayanan, Sri Pachiappan Mudalai & Sons, Maligai, 62, Bazaar Street, Wandiwash.
- (363) P. Nagarajan, M/s Dharañiaraj Cottage Industries, 25/585 Rangia Gowdet Street, Coimbatore-1
- (364) R. Navaneetham, Thevar, Thevurpost, Kivalur, 1-6, A Santhai Post, Thevur.
- (365) Nimichand, 320, Main Bazaar, Ootacamund.
- (366) T. Narasimhalu Chetty & Company, 27 to 30-A, Rasappa Chetty Street, Madras-3.
- (367) K. Naina Mohamed Masisau, 101, Mannady Street, Madras-1.

**Dealers (Contd.)**

- (368) N. S. Natarajan Partner of M/s. M.K.N. Sivannand Nadar & Sons, 91, East Masi Street, Madurai.
- (369) P. N. Natarajan, S/o Sri Nethappa Pillai, 7, Periakade Street, Tuticorin.
- (370) R. Nataraja Pillai, Eastern Street, Eranial (Shop at Monday Market).
- (371) M.A.C Nataraja Nadar, S/o Sri P. Muthusethupathi Pillai, 321/1 Dindigul Palani Road, Oddanchatram.
- (372) N. Nattathambi, S/o Sri P. Muthusethupathi Pillai, 321/1 Dindigul Palani Road, Oddanchatram.
- (374) M. Narayanaswamy nayagar, S/o Sri Narasimhae vayayar, 195, Market Road, Arni.
- (375) M. Narayana Nambiar, S/o Sri Pythal Karui, No 81/95-A Muviyankadu, Meth Street, Namakkal.
- (376) R. Natarajan, 197, Market Road, Pollachi Town, Coimbatore Dt.
- (377) K. Narasimhachetty, 15, Bazaar St. Walajapet, N.A. Dt.
- (378) S. Nallaperumal & Sons, Cape Road, Part View, Nagercoil
- (379) K. Natarajan, 6, Rosappa Chetty St., Madras-3.
- (380) A. V. S. Nataraja Mudaliar, 45-46 Tenkasi Road, Hardware Merchant, Rajapalayam, Ramnad Dist
- (381) V. R. Nagendran & Bros, Iron & Hardware Merchants, No. 30/232 Fort Main Road, Shevapet, Salem-2
- (382) Nadar Timber Depot, Prop. V.S S. Sivakolindhu Nagar, No. 31, Pandy Road, Villupuram.
- (383) M. Nataraja Mudaliar, 9/15 Main Road, Bhavani.
- (384) C.P. Nanjan Chettiar, Murugan Store, Mall Mill Road, Coimbatore.
- (385) S. Natesa Chettiar, 196, Big Bazaar St., Tiruchirappalli-8.
- (386) Nagaswamy Foundry, Subramaniapuram, Madurai-11.
- (387) M. Nambhoj & Co., Frazer Square, Coimbatore.
- (388) Natarajan Achary, Pallivasal, Kolpatti.
- (389) Nellai Hardware Stores, 114 Nelliappar High Road, Tirunelveli Junction
- (390) G. S. Natarajan, No 443, Taramangalam, Omalu Taluk, Salem Dist
- (391) A. G. Nataraja Nadar, Iron Merchant, Ustilampatti, Madurai Dist.
- (392) G. Nataraja Achary, No 2392, Ellayanman Koil Street, Tanjore.
- (393) K. Nanjanda Naicker & Sons, No. 121, Rangai Gowder Street, Coimbatore-1
- (394) S. V. Nadarajan Chettiar, No 296/5-4 Main Road, Vallioor, Tirunelveli Dist
- (395) R. Nathamoony Chetty & Co., No. 32 Venkatachalam Mudali Street, Park Town Madras-3.
- (396) M. Natesan, No. 6/28-A Main Road, Mallasaisundram, (Tiruchengode Taluk).
- (397) M.K.M.N. Pandy Nadar & Co., 87 East Masi St., Madurai.
- (398) P. Palaniappa Chettiar, No 384, Big Bazaar, Street, Tiruchi-8.
- (399) P. R. A. Ponnuswamy, Merchant, Palayakiraman St., Mukkudal.
- (400) Peirce Loshie & Co. Ltd., Race Course, Coimbatore-1.
- (401) Pakir Mohammed, Gandhi Road, Palni Town, Madurai Dist.
- (402) K.V. Pattabirama Chettiar, Kasturi Stores, 41, Big Bazaar Street, Dharapuram, Salem Dist.
- (403) M. Ponniah Chettiar, 5/11 Viaikal Street, Theni P.O., Madurai.
- (404) Parusuraman, 7/233, Big Bazaar, Paramakudi Post, Ramnad Dist.
- (405) S. K. Palaniswamy, D 14/G/3, Avanashi Road, Tirupur.
- (406) P. C. Pulavar Shaik Dawood, 7. Pudumandalam, Madurai Dist.
- (407) V. Perumal Chetty and Sons, No. 3, Stringers Street, Madras.
- (408) A. V. Putushothamalu Naidu & Sons, 1 & 2 Fancy Bazaar, Market Square, Ootacamund.
- (409) Periyananadar, No. 5/178, V.O.C., Street, Sivaganga.
- (410) N. Pitchaimuthu, Hardware & Paint Merchants, 206, Mehrub Road, Pollachi.
- (411) Panakatham & Sons, Murugan Stores, 80, East Masi Street, Madurai-1.
- (412) T. Pichaiyan, C/o Thiagaraja Mudaliar & Sons, Hardware Merchants, Vijayapuram P.O. Tanjore Dist.
- (413) P. Pakriswamy Vandayar, Hardware Merchant, East Gate, Tanjore.
- (414) V. A. Palaniswamy Nadar & Sons, 15/15 Mill Road, Coimbatore.
- (415) V. Periakattan & Sons, General Hardware Paint & Trunk Merchant, 5 & 239, Big Bazaar Street, Dindigul.
- (416) R. Palaniappa Mudaliar, 185, Netaji Road, Erode.
- (417) V. O. P. Palaniswamy and Sons, 72 P. S. Chidambara Nadar Street, Virudhunagar.
- (418) K. Palaniappa Nadar, Sri. K. Karuppanna Nadar, Ammakanru Hardware Stores, 96, Gandhi Road, Palani.
- (419) C. Paudi, M/s. N. C. K. Chidambara Nadar, 297, East Masi Street, Madurai.
- (420) E. Putushotham, S/o Shri K. R. Ethirajunaidu, 15/13 Mill Road, Coimbatore.
- (421) V. A. Punaiyappa Nadar and Co., 247, East Masi Street, Madurai.
- (422) N. Ponunswamy Udayar and Sons, General Merchants, Bazaar St., Uludurpet.

## Dealers (Contd.)

- (423) Paints and Hardware Mart, Commercial Road, Ootacamund.
- (424) K. Rajagopala Chetty and Sons, Hardware and Paint Merchants, Kallakurichi, South Arcot Dist.
- (425) A. S. K. Rathaswamy Nadar, No. 84/5, North Raja Street, Sivaganga, Ramanad Dist.
- (426) V. Rangaswamy Naicker, Ranipet Attur P.O. Salem Dist.
- (427) M. M. Rafi, Big Bazaar Street, Mayuram.
- (428) S. V. Naharathina Nadar, 2101, Teppaunarth Bazaar, Virudhunagar.
- (429) S. P. Raja Kannu, Nataraja Foundry, 82, T. T. P. Road, Vijayapuram, Tanjore Dist.
- (430) Ramachandran and Bros., 207, Big Bazaar, Tiruchirappalli.
- (431) D. A. Ranganathan Chetty, 119, Main Road, Shevapet.
- (432) L. M. Ramiah Pillai, 43, Big Bazaar St. Maunar-gudi.
- (433) A. K. M. Rangaraju Chettiar, 9/59 Bazaar St., Perundurai, Coimbatore Dist.
- (434) M. Ramalingam, 118 Bazaar St., Wandiwash.
- (435) S. S. P. Rajindran, P. and R. Rajeswari and Co., No. 361, Madurai Road, Aruppukottai.
- (436) A. R. T. V. Ramanathan Chettiar, Door No. 115, Silambani North Street, Devakottai, Ramanathapuram.
- (437) S. P. R. A. N. D. Rengaswami Raja, 106/11-IV, Sandhi Bazaar, Rajapalayam.
- (438) A. Ramalingam Chettiar, Chinnakadai Street, Tiruchirappalli.
- (439) Radha and Chalam, Hardware and Paint Merchants, No. 714-715, Raigai Gounder Street, Coimbatore.
- (440) D. Ramaswamy, No. 12-A, P. V. Koil Street, Udumalpet.
- (441) V. T. Raja and Co., D. 123, T. T. P. Road, Vijayapuram.
- (442) R. Ramakrishna and R. Varadaraja Partners Science Industrial Work 33/2 Katpadi Road, Vellore, Branch 278 Waltex Road, Madras-2.
- (443) A. Ramamurthi Chettiar, Dhanalakshmi Cottage Works, 41, Old Taluk Office, St., Tirukoilur.
- (444) R. Rangachari, Kanaan and Company, 53, Bazaar Street, Ayyampet post, Tanjore Dist.
- (445) Rajeswari and Co., Brass Vessel Merchants, 9, Uthama Varayagar Lane, Karaikudi.
- (446) S. Ramdass and S. Kandaswamy, S/o Shri Sundara Mudaliar, 164, For Main Road, Salem-2.
- (447) M. S. Ramamurthy, Iyer, Hardware Merchants, P. B. No. 1, 59, Pattamangalam Street, Mayavaram.
- (448) V. A. M. Rathinam and Bros., 13/14 Vysial Street, Coimbatore.
- (449) V. Rajagopala Iyer, Maligai Merchants, Azad Road, Vijayapuram, Tanjore Dist.
- (450) K. M. Ranganathan, 145, 146 and 147 Jawahar Bazaar, Karur, Trichi Dist.
- (451) T. S. Ramamoorthy (Partner) Minerva Agency, P.B. No. 149, Madurai.
- (452) N. Ramayya Nadar, 100, Big Bazaar, Dindigul.
- (453) P. Ramachandran, 8/3 Doraiswamy Ayyangar, Street, Ayanavaram, Madras-23.
- (454) Rev. Father Dasan, Dabucida, St. Joseph's Technical Institute, 46/41 Palamcottah Road, Tuticorin.
- (455) M. M. Rajan, M/s. K. N. Mukantha Nadar, 453, Big Bazaar Street, Virudhunagar.
- (456) R. Rajarathnam, 105, New Tail Road, Ponnagarai, Madurai-10.
- (457) Raja J. Raju Chettiar, S/o Sri Raju R. Jayaram Chettiar, Hardware Merchant, 105, Big Bazaar St., Dharapuram.
- (458) V. S. Rajappan, S/o Sri A. Shunmugam Nadar, Managing Partner, M/s. The Kaka Foundry, Thiruthangal, P.O. Sivakasi.
- (459) R. Rengaswamy Naidu, Agent M/s. Sundarams Private Ltd., 63, Kanthapuram Street, Virudhunagar.
- (460) J. Radhakrishna Naidu, S/o Sri Jayaram Naidu, 25, T. B. Opp Railway Station, Tindivanam.
- (461) T. P. Radha Krishnan, No. 4 Ward No. 8 Nachiarkoil Road, Tiruchirappalli-3.
- (462) V. N. R. R. Ratnam, 935/4 Railway Feeder Road, Rajapalayam.
- (463) R. Ramakrishnan, S/o Raju Mudaliar, 33/2 Ramachandra Rao, Kumar Gimini Hardware Stores, Main Road, Coonoor.
- (464) M. Rathinaya Pillai, S/o Sri Malayandi Pillai, Dhanalakshni Stores, Main Road, Poravura.
- (465) T. S. Radhakrishna Chettiar and Sons 74, Salon Street, Ayyampet, Tanjore Dist.
- (466) Rajamony Nadar and Sons, 80 Palakkai Road, Clock Tower, Tiruchirappalli.
- (467) A. R. M. K. Ramaswamy Chetty and Co. 32, Big Street, Kumbakonam Tanjore Dist.
- (468) V. Raju Naidu and Co., Timber Tiles and Hardware Merchants 15/6 Mill Road, Coimbatore.
- (469) P.C.S. Shaik About Khadar, B.A., Specialist in Scales.
- (470) R. S. Subbiah Nadar, S/o Sri R. Sudalanouppa Naidu, 79, Palakarai Road, Trichy.
- (471) A. O. Somasundaram Chettiar, S/o Sri Alaganatha Chettiar, Druggist and Paint Merchants, Ayyankadai, Tanjore.
- (472) K. S. Srinivasan, Balaji Engineer Small Tools, 30, Gokhale Road, Madurai-2.
- (473) S. S. Sinnathurai Nadar, Hardware and Paint Merchant, 87, 88, S. N. High Road, Tirunelveli-1.
- (474) K. V. Semmalai Kander, A. S. Pachiappan, Iron and Paint Merchant, Market Lane, Erode.

Dealers (*Contd.*)

- (475) A. R. M. Srinivasagam Achary and Sons, Nellai Jewellery House, 37, Koolakadai Bazaar, Tirunelveli Town-6.
- (476) R. Shanmugam, No. 112, Palladam Road, Tiruppur.
- (477) A. Srinivasa Chettiar and Sons, Thiruthuraipoondiy, Tanjore Dt.
- (478) Y. Shahjean, 57, Badajj Sahl St., Mount Road, Madras-2.
- (479) K. Sahasranamam (Partner) Cleamout Cottage, Gool Mohammed Road, Ootacamund.
- (480) T. S. Stanes and Co., Ltd., Post Box No. 12, Coimbatore.
- (481) S. Sankaran Achary, Bangalore Street, Sankarankoil.
- (482) T. R. T. S. Subramanian Chettiar, K. A. Shakoor, 15/51, Mania Thotham, N. H. Road, Coimbatore.
- (483) Surya and Co., 96, Chinna Chetty Street, Trichy-8.
- (484) N. Sachithanandam Pillai and T. V. Lakshman-swamy Pillai, General Merchants, Virudhachalam.
- (485) V. A. Sarangapani Pillai, Hardware and General Merchant, Pattukkottai.
- (486) P. Shah and Co., No. 21, Linghi Chetty Street, Madras.
- (487) V. A. Srinivasa Pillai, Iron and Hardware Merchant, Mannargudi, Tanjore Dist.
- (488) Sha Mangilal Matha, No. 96, Narayana Mudaly Street, Madras.
- (489) Sha Jetmal Ganmull, No. 2/2 Narayana Mudali Street, Madras-3.
- (490) Sha Poosaji Manjilal, No. 96, Narayana Mudali Street, Madras.
- (491) K. C. P. Sankaralinga Nadar and Bros., Srivilliputhur.
- (492) P. Subramaniam, Shevapet, Salem-2.
- (493) V. P. Sankaralinga Nadar and Sons, No. 250, West Masi Street, Madurai.
- (494) Saifu Hardware Mart, Hardware and Paint Merchants, Mill Road, Coimbatore.
- (495) P. Syed Mohammed, No. 619, Khullupattai Street, East Gate, Tanjore.
- (496) H. S. Shahul Haneed, Hadhed Street, Tirurithangode, Kalkumal Taluk Kanyakumari Dist.
- (497) K. Sadasivam Pillai Merchant, Monday Market, Neyyoor.
- (498) S. L. Sankara Kumaran Nadar and Sons, Thukkampalayam St., Kubakonam.
- (499) K. C. Suwashamugam S/o Sri D. Ganapathy Patner, Bhuvaneshwari Mill Stores, 27-B Mureenallamuthu.
- (500) V. A. S. Shunnuga Sundara Nadar and Bros., 43, Aman Saunadhi St., Madurai-1.
- (501) Secretary, The Kalkulam Co-op. Purchase and Sale Society Ltd., No. 2048, Kalkulam Taluk
- (502) P. A. Subbaraja, S/o Sri A. Alaga raja, North Car St, Sankaravainarkoil.
- (503) M. S. Srinivasan, C/o Sri Sesha Iyengar, No. 9, Bharathi Theatre, Tiruchi T Road, Thurairiyur.
- (504) P. Subbiah, S/o Sri A. M. Perumalnaidu, Thiruthangal.
- (505) S. Sugavanam, S/o Sri Swaminatha Iyer, Darmapuri.
- (506) V. S. Subbier, Chockalingam Stores, Main Road, Natham, P. O. Madurai Dist.
- (507) A. P. Swamy, M/s A. P. S. and Co., 574 Main Road, Vathoor.
- (508) Sundarams Private Ltd., TVS Buildings, West Veli Street, Madurai.
- (509) R. Sundaramurthy, S/o Sri A. Ramachandra Sastrigal, No. 1, Big Bazar St., Ariyalul.
- (510) R. Subramaniam, S/o Sri K. P. Ramaswamy, Mudaliar Sivappa post, Salem Dist.
- (511) R. A. C. Sabapathi Vinayagar, S/o Sri R. A. Chidambara Moopanagar, M/s R. A. Chidambara No. 59-60 North Car Street Sivagiri.
- (512) V. M. Shaik Abdul Khader, S/o Sri V. Meera Sahib, 224 Thambuchetty St., Madras.
- (513) P. N. Somasundaram Chettiar, No. 383, Big Bazaar, Tiruchi.
- (514) M. Sankaralingam Pillai, No. 159-A, East Car Street, Tirunelveli.
- (515) Shanmugavel Asari, 22/9/8 Periasamikoil Street, Srivithipathur, Ramanathapuram.
- (516) T. Sundaram, No. 20, Kanaappa Nainar Street, Villupuram.
- (517) Stanes and Co. Ltd., Ghat Road, Coonoor.
- (518) Sridhar Stores, B-5 Sivapuri, Salem-4 Salem Dist.
- (519) Sethuraman Chetty, No. 382, Big Bazaar, Tiruchirappalli-8.
- (520) T. V. Sivaloganatha Nadar, Hardware Merchant, Nagapapuram, P.O.
- (521) P. M. Syed, Mohamed and Brothers, 4/439, Gape Road, Hardware Merchants, Kottar.
- (522) M. S. P. Sivaswamy Nadar, Iron and Rice Merchants, Aruppu Kottai, Ramnad, Dist.
- (523) R. Seetharaman, Iron Vessel Merchants, 44 Yarnaiyadi, Kumbakonam.
- (524) C. Subramaniam, Mani Stores, Electricals and Hardware Goods, Rasipuram Post, Bazar St., Salem Dist.
- (525) R. Sankarrah Naidu, Shop Merchant, Mandapam, Tenkasi.
- (526) Sajuddis, Akberally (Partner) No. 34, Linghi Chetty St., Madras.
- (527) M. Sundaram Pillai, 17, Jawahar Bazar, Karur.
- (528) P. Sundaramoorthy Asdari, Modagur, P.O. Gingee Taluk.

**Dealers (Contd.).**

- (529) A. Swaminathan, S/o Sri Arumunga Achari, 49, Kamakshiamman Koil Street, Tiruvannamalai.
- (530) Subramanian and Co., 133 Valayaka Street, Erode.
- (531) S. K. Subramania Chethiar, S/o Sri Kuppu Venkatarama Chethar, Main Road, San-karidig, P.O. (Salem Dist.)
- (532) K. Subhasitham, Subhash Iron Implement Factory, Neduithapurajidom veedu, Kaliakkani.
- (533) South Madras Agencies Private Ltd., 10 West Bolvaryard Road, Tiruchirapalli-8.
- (534) M. Subramani, S/o Sri K. Manuswami, 8 Bazaar St., Trivellore.
- (535) Southern Trading Co. Palakarai Turaiyur.
- (536) G. Sundaram Pillai, No. 8, New Market, Ootacamund.
- (537) P. S. Subbiah Nadar, 308, 309 East Masi St., Madurai.
- (538) M. A. Salam, 178, Nainiappa Naickar St., Madras-3.
- (539) S. K. R. and Co., 1A/2 Obla Subbior Lane, South Gate, Madurai.
- (540) M. Senthinathan, 9/238 Sannadhi St., Sri-vakuntam, Tiruvelveli Dist.
- (541) K. Srinivasan, 10, Mariamman Koil, Street, Tindivanam.
- (542) E. A. Shanmugam, Tool Merchant, Bangle Sellers Street, Erode.
- (543) T. Staves and Co., Dinaington, Kotagiri.
- (544) S. Syedmuhammed, Rowther Sons, 89, Mylam Chandai, Tiruchi-8.
- (545) K. A. Shukoor, 15/42 Maniathotam, N. H. Road.
- (546) P. S. C. Sundarammal and Co., 28, Vengalakadaist, Madurai.
- (547) P. H. Sheik Allauddin Palakarai Road, P. B. 462, Tiruchirapalli.
- (548) A. Sahjumaiyah Sahib, Sri Ameermiah Sahib, 47, Eazimar Pallivasal Main St., Madurai.
- (549) P. R. Sarangapani Chettiar and Sons, Sri Lakshmi Stores, 211-A Ward 13, Gandhi Road, Palani.
- (550) K. Sango, Merchant, 2/43, Middle Street, Tiruvadanai.
- (551) S. Srinivasan, 150-WI Siva ganga.
- (552) V. S. K. Sivanandhi Chettiar, 7/188 Big Bazaar, Paramakudi.
- (553) S. P. Subha Raja and Sons Hardware and Paint Merchants, Santhi Bazar, Rajapalayam, Ramnad Dist.
- (554) S. Y. Saied Yakub Hussain Sahib, 3-644 East Main Road, Thanjavur Dist.
- (555) S. A. T. Shanmuga Nadar, Railway Station Road, Tiru thuraipoondi.
- (556) V. Setharaman, Proprietor, Sri Ganesh Hard-ware Mart, Sukali.
- (557) T. Sivagururiatha Pillai, 265, East veli Street, Madurai.
- (558) P. V. Stores, 3, Bunder Street, G. T. Madras.
- (559) Shifeedeen, Hardware and Paint Merchant, 77-A, West Car Street, Chidambaram.
- (560) Sethyanarayana Corporation, 56, Agraharam, Shevapet, Salem-2.
- (561) Sri S. Sivalingam Pillai, Merchants, 29/182, Cape Road, Kottar Nager Coil.
- (562) P. Sadasivan, P. Sadasivan and Brothers, 5, Thothiankinaru Street, Madurai-1.
- (563) J. Srinivasa Gupta, S/o Late R. Jayaram Chettiar, Hardware and Paint Merchant, 57-58, Big Bazaar Street, Dharapuram.
- (564) R. Subramaniam, Managing Partner, M/s R. S. Mani and Bros., No. 1, IVth Trust Grees Street, Mandavalipakkam, Madras-28.
- (565) Sankarakumara Nadar and Sons, 166, North Cotton Road, Tuticorin.
- (566) K. Santhubava Rowther and Sons Co., 301-302, Vysial Street, Coimbatore.
- (567) Sankara Kumara Nadar, 31-C, Palakarai Road, Trichi-8.
- (568) M. Subramanian, No. 5, Yanaikkal Madurai, Shanmugha Hardware Co., 4/1817, Neela South Street, Nagapatnam .
- (569) S. L. Sankara Kamaru Nadar, 397, W. G. C., Road, Tuticorin.
- (570) D. Suriah Chetty and Sons, Merchants and Contractors, Hosur Cattle Farm P.O., Salem Dist.
- (571) P. Seshchalam and Bros. 26 M. S. C. B. Road, Madras-1.
- (572) Thirupathi Raja, Hardware Merchant, 371/10, Mani Road, Kolpathi.
- (573) P. T. M. Thaapan and Co., Iron Merchants, 295, Big Bazaar, Dindigul.
- (574) K. C. Thangavelu, Chettiar, 92, Main Bazaar, Vellore.
- (575) P. N. Thanickachalam Chetty, No. 12, Gengaraman Street, P. T. Madras-3.
- (576) Tilak Industries, 28/1-A, Mooker Nallamuthu Street, Madras-1.
- (577) A. V. Thomas and Co. (India) Ltd., 2/21 First-lane beach, Madras.
- (578) V. P. Tirulai Chettiar, Shop at Vembadithalam Salem Town.
- (579) T. A. Tarjebali and Company, 294, Lingha Chetty St., Madras-1.
- (580) M. Thanikachalam, Sri Murugan Hardware, 31-32 West Car St., Chidambaram, South Arcot Dist.
- (581) A. S. Thirumalai Nambi Naidu, 5-A Mela Mada St., Tirunelveli.
- (582) Taybally Hardware and Mills Store, 180-181 Long Bazaar, Vellore, N. A. Dist.
- (583) Thavasimuthu Nadar and Sons, General Merchants, Kurumbur.

## Dealers (Contd.)

- (584) G. Thambuswami, Secretary, Gandhiniketan Co-operative Village Industries Limited.
- (585) A. T. N. Thammanna Chettiar and Co., 348, Raja St., Coimbatore.
- (586) Thiruneelakandar and Co., Shevapet, Salem-2.
- (587) T. Thangavelu Achary, P. S. C. Nadar St, Virudhunagar.
- (588) S. Thirumal Nadar, Maligai Hospital Road, Nazareth.
- (589) S. P. Thirumal Nadar and Co., 196-197 Kalukkattai South, Karaikudi-1.
- (590) S. T. C. Thiruvadinala Pillai and Bros., N. M. C. No. 5299 Cape Road, Nagercoil.
- (591) Union Company (Motor) (P) Ltd., H. O. 29 Mount Road, Madras-2) Garden Road, Ooty.
- (592) Unicorn Company (Accessories) Private Limited, No. 29, Mount Road, Madras-2.
- (593) P. V. Ukkuru, No. 15/139, Newab Hakum Road, Coimbatore.
- (594) F. V. Ukkuru, No. 335, R. G. St., Coimbatore.
- (595) K. V. Vaiyapuri Chettiar, Iron Merchants, 192, Netaji Road, Erode.
- (596) S. S. Vaiyagamuthu Nadar, No. 75, Swami Sannadhi, Madurai.
- (597) M. Viswanathan, Manager Raja Trading Corporation, 15, Malam Sandhai, Tiruchirapalli-8.
- (598) Virudhunagar Industries, Works, Sales Office, Virudhunagar.
- (599) S. Viswanathan and K. B. Pattabiraman, Big Bazaar Street, Coimbatore.
- (600) V. Venkatesan, 27, Karuppa Gounder Street, Coimbatore.
- (601) R. Viswanatha Chettiar Sons, 116-11, Clock Bazaar Street, Dharapuram.
- (602) G. Venkatesa Pathar, Prop. M/s Venkatesa Bros. Moulding Works, 18, Pattai Bagyanatham Pillai Street, Kumbakonam.
- (603) B. Venkataraman, Novelty Stores, Neela East Street, Nagapattanam.
- (604) P. Vehiswamy, Tiruppur, Coimbatore Dist.
- (605) United Hardware Co., New Market, Ootacamund.
- (606) A. Vellaiaswamy Nadar, 102/12 Main Road, Kovilpatti, Sri Murgan Industrial Works.
- (607) H. W. Venkatachalam Chettiar Sons, Krishnagiri, Salem Dist.
- (608) P. S. Venkoba sa-109-A, Chavadi St., Cheikpet, Kanchipuram.
- (609) K. S. T. R. Villayan Chettiar, Selvi Vaiayayar Street, Santapettai.
- (610) P. V. Venugopal Naidu, Bazaar Street, Polur North Arcot Dist.
- (611) T. Veera Naicher, No. 100 Mani Road, Kumarapalayam (via) Erode.
- (612) Veluswamy Pillai, Ria Millowner Vivakagar Vaikalkara Street, Mananbuchavad, Thanjavur.
- (613) G. Venugopalan, No. 66, Old Hospital Road, Gobichettipalayam.
- (614) Vadaivodaimbal Store, 1-A, Genguraman St., Madras-3.
- (615) V. N. Venkataswamy Naidu, No. 318, Kanakarajan St., Udumalpet.
- (616) K. Veerabadran, Partner, M/s Lingam and Co., No. 36, W. G. C. Road, Tuticorin.
- (617) Vazirbuu Trading Co., A 29 Perianna Mistry Street, Madras-1.
- (618) M. Yasuff and Bros., Hardware Merchant, Cape Road, Kottar NMC No. 30/142, Kanya Kumari Dist.

## Repairers

- (1) Avery Company of India Private Limited, 16-17 Armenian st., Madras-1 Branch at 6/125 Trichy road, P.B. No. 215, Coimbtore-1.
- (2) G. K. Abdul Gani Rowther, S/o O. Khaderas rowther (Late) 16, Fort street (South) Virudhachalam.
- (3) R. Appuswamy, S/o Ramaswamy No. 1, Jeer Naick st., Madras-24 Office. 103, Mannady street, Madras-1.
- (4) Andhra Scientific company, Limited, 4, Blacker's road, Mount road, Madras-2.
- (5) Aurumugam, S/o Sadasiva Achary, Ediyam Tottam, Chidambaram.
- (6) Avery Company of India Private Ltd , 16,17, Armenian street, Madras-1.
- (7) T. B. Arumugam 1-A Telegraph Abby Naidu Lane, Kondithope, Madras-1.
- (8) R. Aiyaswamy, Metric Weights Dealer, Bell Studio, Tiruvannamalai.
- (9) R. Ayyaswamy, No. 21/Asaliammman Koil Street, Tiruvannamalai, North Arcot District.
- (10) S. Anthoniswamy, Solomon Foundry, Nagapattinam.
- (11) Amaan, No. 26, Nair Ayya Pillai Street, Royapettah, Madras-14.
- (12) P. Balakrishnan, S/o K. Kondiah Jyothi scale company , Sl, Perumal Kovil Garden st, 5th Lane, Sowcarpet, Madras-1.
- (13) K. Balasubramaniam, 18, Mela sannadhi, Chidambaram.
- (14) Chelliah Achari, Bungalow Street, Sankarankoil, Tirunelveli Dt.
- (15) K. P. Darmalingam, No. 16, Asirvathapuram, Vth Line, Mannady, Madras.

**Repairers (Contd.)**

- (16) C Doraivelu, 2/5, Ekambara Kumarayur Street, Periamet, Madras-3.
- (17) A P. Dhayalan, No. 1, Parasiva Chetty Street, Park Town, Madras.
- (18) A. K. Dorairajan, No. 140, Choolai High Road, Madras-7.
- (19) Exel Industries, Velandipalayam, Coimbatore.
- (20) M. Elumalai Naicker, No. 202/1, Railway Station Road, Tiruvelllore.
- (21) D. Elumalai, No. 37, Iyyappa Chetty Street, Mannady, Madras-1.
- (22) A Gurunath, 15, Stringers Street, Madras-1.
- (23) P. Gopalan, S/o V. Pichayya, 1, Acharappan Street, Madras-1
- (24) S. S. Gnanamier, Musaffar Bungalow St., Tirupattur, Ramnad Dist.
- (25) G. Govindaraju, Sagayam Scale Service
- (26) Ganapathy Mudaliar, Hardware Merchant, Bazaar Street, Tindivanam.
- (27) V Govindarajan Pillai, No. 46, Kumara Koil Street, Guddalore, N.P.
- (28) E. S. Haji and Company, No. 12, Sembudoss Street, Madras
- (29) T. E. Industries, Lessess, V and M. Gopalakrishniyan and Sons, 36, Palam Station Road, Sellur, Madurai.
- (30) V. Janarthanan, 21, Thukkaram St. Manjakuppam, Cuddalore, S.A. Dist
- (31) S. M A. Jabbar, Kolla Street, Nagore.
- (32) P. V. Krishnam and V R Subramaniya staphathi, Partners, New Royal Engineering Works, 32/6, Katpadi Road, Vellore.
- (33) C Kumaraswamy, S/o C. Murugesa Mudaliar, 266, Mint Street, Madras-1.
- (34) R. Kuppuswamy, 17-A, Badrakalamman koil St., Big Kancheepuram.
- (35) Krishnan Asari, 317/W3, Vadakkuvadi St., Sivaganga.
- (36) K. S. Kalimuthu, No. 28/28, Rangai Gowder Street, Coimbatore.
- (37) V Krishnaswami, No 31, Chakrapani South, Kumbakonam.
- (38) Latheef Sahib, Muhammedan St., Ulundurpet, S.A Dist
- (39) T. Loganathan, No. 49, Nyiappa Naicken Street, Madras-1.
- (40) A. S. S Moorthy, 10, M. K. Naicker road, Alandoor, Madras-16.
- (41) V. M. Mohamood Shaik Dawood, 12-A, Dr. Niamathulla Sahib St , Triplicane, Madras-5.
- (42) S Muthu Achari, S/o M. Subhan Achari, Bachamiany St , Sattur.
- (43) Mighty Scales Company (1) A. V. Subramanian (2) A. V. S Jagannathan (3) T. N. Sundaravelu and (4) T. G. Shamugam 123, Park Road. Erode.
- (44) K. Malakondaiah, S/o K. Kondiah Jyothi Scale Company, 51, Perumal Kovil Garden St., 5th Lane, Sowcarpet, Madras-1.
- (45) T. K. Munirathinam, S/o T. S Kuppuswamy chettiar, 26, Bazaar Street, Tirukkalikundram.
- (46) S. P. Muthuswamy Gounder, 88-F/5/19, Palladam Road, Tiruppur.
- (47) S. A. Mohammed Jakiria, Yagusam Jhaikal Street, Nagore.
- (48) Najmi Industries, 17, Singanna Naicker St., Madras.
- (49) K. Naina Mohamed Marieair, S/o Kadir Mohideen Mainan, 101, Mannady Street, Madras-1.
- (50) A. Nachimuthu, S/o A. V. Ayyasamy, A. V. M. Cloth Store, 28, Teppakulam St., Tiruchengode, Salem Dist.
- (51) V. A Nilson, 2/11-A, Red Hills Road, Ikkadu, Trivellore.
- (52) S Noor Mohammed, C/o A. S. K Gani Bawa, Emaneswaram Post, Paramakudi, Ramana-thapuram.
- (53) P. Natarajan, 60, Chinnamman Koil Street, Chingleput District.
- (54) Natarajan Achary, S/o Pitchandi Achary, Pallivasal Street, Koilpatti
- (55) V. Periathurai Achari, S/o V. Vadivel Achari, Gopalakrishna Engineering Works, 26, Padavattammankoil St , Panruti.
- (56) N Ponnuswamy Udayar, Ulundurpet, S. A. Dist.
- (57) Ramanujam Naidu, Prop. Bharat Mechanical Engineering Works, Keelavur, Tirukkoilur, South Arcot Dist.
- (58) S D. Rajan, S/o Soundararaja Naidu, 15/409-A, Oppanakar Street, Coimbatore shop at Everest Scales Services, No. 7, Muthuvinayakar kovil covur, Vysial Street
- (59) M. V. Raman, Udayakumar Repair Works, 55, Nainiappa Naick St.. Mannady Madras-1.
- (60) V R Raja Manickam Chettiar, No 175, Bazaar Street, Vridhachalam.
- (61) K. Ramachandra Mudaliar, No 11, Marappa Reddi Street, Tiruvelllore.
- (62) P. Ramachandran, No 8/3, Doraiswamy Ayyangar Street, Madras-23.
- (63) R. Ramdoss, No 135, Sangalaneer Pilliar Koil Street, Madras-1.
- (64) A. K. Ram, No. 87, Pidariar Koil Street, George Town, Madras-1.
- (65) S. Rajagopala Naidu, A. I. Neela South Street, Nagapattinam.
- (66) T Subramaniya Naicker, No. 2, Muthumari Chetty St , Mannady, Madras-1.
- (67) M. K. S. Shahabdeen, 6, Jaffer Syrang Street, Madras-1
- (68) A. D. Swamy, 39, Lakshmiammankoil St., Perambur, Madras-11.
- (69) K. S. Srinivasan, Balaji Engineer and small tools, 30, Gohale Road, Madurai-2 (Office) Factory block CI-1, Industrial Colony, Madurai.

**Repairers (Contd.)**

- (70) T. S. Subramaniam, S/o T. Ethurajan, 95-A, Sannathi St., Tirupapulyur.
- (71) M. S. Salem, S/o Abdul Kader sahib, 178, Nainiappa Naicken Street, Madras-3.
- (72) S. R. D. Swamy, 1/8, Selvi Vinayagarcoil St., Old Washermanpet, Madras-21.
- (73) S. Sivaprakasam, No. 32, Chella Pillaiarkoil St., Royapettah, Madras-14.
- (74) K. Srinivasan, C/o D. Sundaramoorthy, Tindivanam.
- (75) T. Sundaram, 20, Kannappa Nainar St., Villupuram.
- (76) Y. Shahajan, S/o Yusub Sahib, 57, Baday Sahi Street, Mount Road, Madras-2.
- (77) A. C. Swamy, No. 11, Subbaraya Naicken Lane, N.S.C.B Road, Madras-1.
- (78) C. K. Sundaram, No. 617, Inspector, Subbaraya Naidu Street, Madras-21.
- (79) K. Sahasram (Partner) Cleamont Cottage, Gool Mohammed Road, Octacamund, Scales and Services.
- (80) Shanmugam Industries, Prop. E.T. Radhakrishna Chetty, No. 64/65 Nytiappan Naick Street, Madras-3.
- (81) Syed Umar (S) Bus Stand, Tin Works, Kalladakurichi.
- (82) P. Sundaramurthy Achary, Modayur P.O. Gingee Taluk.
- (83) S. Selvaraj, 47, Nainiappan Street, Madras-1.
- (84) S. Selvam, A. B. C. Thanjav Rayagipura Agraram, Kumbakonam.
- (85) K. M. Thiruvengadu Mudaliar, 8, Ibrahim sait street, Kondithope, Madras-1.
- (86) C. K. Thangavelu Achari, 22/B, Thoppaian St., Chidambaram.
- (87) A. T. N. Thammanna Chettiar and Company, No. 348, Raja Street, Coimbatore.
- (88) V. Venkatesan, S/o T. N. Venugopal, No. 27, Karuppa Gounder Street, Coimbatore.
- (89) Venu Pillai, Bazar Street, Panruti.

**MANIPUR (2)**

A list of manufacturers, dealers and repairers licensed was published in November 1962 issue of Metric Measures. The following is a list of manufacturers since licensed by Manipur Administration.

- (1) Associated Industrial corporation, 1278, Bharon Bazar, Agra.
- (2) Girishchandra Ghosh, 68, Clive St., Calcutta-7.
- (3) R. B Industries, Fancy Bazar, Gauhati.
- (4) S. S. Iron Foundry, Laxmi building, Agra (India).
- (5) Janta Engineering Works, Jhajjar Road, Rohtak.

**RAJASTHAN (2)**

In the January 1962 issue of 'Metric Measures' a list of manufacturers, dealers and repairers of weights and measures in Rajasthan was published. The following is a further list of licensees since licensed by Government of Rajasthan under Rajasthan Weights & Measures Act, 1958.

**Manufacturers**

Sl. No.	Name and Address of Manufacturer	Details of Articles Manufactured
(1)	Abdul Rahman and Sons, Moti Chota, Udaipur ..	Brass Weights
(2)	Allied Industries, Hawa Sarak, Jaipur South ..	Cast Iron and Brass Weights.
(3)	Arun Industries, Sansar Vila, M.I. Road, Jaipur ..	Brass, Bullion and Milligram Weights.
(4)	Ashu Industries, Bhagwan Ganj, Ajmer .. ..	Length
(5)	Bansilal Radhay Shyam, Bistiyon kabas, Jodhpur ..	Cast Iron, Brass and Bullion Weights.
(6)	Bajranglal Radhey Shyam, Bhopanganj, Bhilwara ..	Cast Iron, Brass Bullion Weights Length Measures.

Manufacturers (*Contd.*)

Sl. No.	Name and Address of Manufacturer	Details of Articles Manufactured
(7)	Bhanwari Lal Kansara, Ada Bazar, Jodhpur .. ..	Length Measures.
(8)	Bhantia Industries, Nagaur .. .. ..	Brass and Cast Iron Weights and Length Measures.
(9)	Bharat Industrial and Trading Co. Alwar .. .. ..	Cast Iron and Brass Weights.
(10)	Bharatpur Tambha Pital Utpadak Sah Samiti, Bharatpur.	Brass Weights.
(11)	Bhiyani Foundry and Engineering Works, Hanumangarh	Brass Weights.
(12)	Chandmal Verma, Kishanganj .. .. ..	Length Measures
(13)	Faiz Mohd. Khan, Chandki Taksal, Jaipur .. .. ..	Brass Weights.
(14)	Ganesh Engineering Works, Beawar .. .. ..	Brass and Bullion Weights.
(15)	Ganesh Lal Ghanashyam Dass, Tambi, Chandpole, Jaipur	Cast Iron and Brass Weights.
(16)	Gulab Chand Chandmal Industries, Jodhpur .. ..	Brass, Bullion, Sheet Metal Weights.
(17)	Hukon Iron and Brass Foundry, Jaipur Road, Ajmer	Cast Iron, Weights and Length Measures. Capacity Measures.
(19)	Jahir Mohd. Iron Works, Nataniyon ka Rasta, Jaipur	Brass and Bullion Weights.
(18)	Jagannath Pd. Hazarilal, Atalbundmandi, Bharatpur	Cast Iron and Brass and Length and Capacity Measures.
(21)	Kashav Engineering Foundry Works, Ratangarh .. ..	Brass Weights and Cylindrical.
(20)	Jindal Metal Works, Ratanada, Jodhpur .. .. ..	Cast Iron and Brass Weights.
(22)	Magan and Co., Nayaghat Road, Jaipur .. .. ..	Brass and Bullion Weights.
(23)	Mahalaxmi Foundry Works, Bhilwara .. .. ..	Length and Capacity Measures and Counter Machines.
(24)	Mistri Jamaluddin, Naya Kua, Bikaner .. .. ..	Cast Iron Weights.
(25)	Modern Engineering Works, Opp. Anand Cinema, Jodhpur.	Cast Iron and Brass Weights.
(26)	Mohan Foundry Works, Menerva Road, Jodhpur .. ..	Length and Capacity Measures.
(27)	Mohan Industries, Srinagar Road, Ajmer .. .. ..	Cast Iron and Brass Weights.
(28)	Muktars Iron Store, Sri Ganganagar .. .. ..	Cast Iron Weights.
(29)	Popular Iron Foundry, Alwar .. .. ..	Cast Iron, Brass and Bullion Weights.
(30)	Raj Band Manufacturing Co., Doongri Road, Jaipur .. ..	Length Measures.
(31)	Rameshwarlal S/o Chand Mal Verma, Kishangarh .. ..	Brass Weights.
(32)	Sharma Industries, Station Road, Ajmer .. ..	Brass and Bullion Weights and Length Measures.
(33)	Shankar Lal and Co., Naya Kua, Bikaner .. .. ..	Cylindrical Measures.
(34)	Shanks and Harries, Roopangarh Road, Kishangarh .. ..	Brass Weights.
(35)	Suresh Iron and Steel Works, Bharatpur .. .. ..	Cast Iron Weights.
(36)	Vijai Metal Industries Road, Jaipur .. .. ..	

Please refer to lists published on pages 32 to 34 of January issue of 'Metric Measures'.

*Manufacturers*—Names of Manufacturers appearing at items. 1, 2, 4, 7, 9, 10, 11, 4 and 16 are no more the licensees and so their names have since been deleted from the list.

*Dealers*—Names of Dealers appearing at items 1, 5, 7, 15, 17, 18, 19, 22, 23, 24, 25, 29, 31, 32, 34, 39, 41, 43, 44, 48, 49, 50, 52, 56, 57, 58, 61, 63, 65, 67, and 68 are no more the licensees and so their names have also been deleted.

*Repairers*—Names of Repairers appearing at items 2, 5, 6 and 7 are no more the licensees and so their names have been deleted.

## Dealers

Sl. No.	Name and Address of Dealers	Details of Articles Sold
(1)	Abdul Gaffar and Co., Sri Ganganagar .. ..	Cast Iron, Brass and Bullion Weights, Length Capacity Measures, Beam Scales and Class C and D.
(2)	Abdul Rehman and Sons, Moti Chota, Udaipur ..	Brass Weights.
(3)	Abdul Taib Mulla Fida Hussain (Kota) Baran ..	Cast Iron, Brass and Bullion Weights, Length Capacity Measures and Counter Machines.
(4)	Agarwal Bartan Bhandari, Nagpur ..	Cast Iron and Bullion Brass.
(5)	Agarwal Brothers, Kishanpole, Jaipur ..	Brassweights, length measures and beam scales.
(6)	Allied Industries, Hawa Sarak, Jaipur South ..	Cast Iron and Brass Weights.
(7)	Albarali Hazi Ismile, Outside Hathipole, Udaipur ..	Cast Iron and Brass Weights length and capacity measures and beam scales Class C and D
(8)	Arun Industries, Sansar Vila, M I. Road, Jaipur ..	Brass, Bullion and Milligram weights.
(9)	Aratmal S/o Pesuram Kandoi Bazar, Jodhpur ..	Cast Iron & Bullion Brass Weights and Beam Scales Class B, C and D.
(10)	Ashu Industries, Bhagwanganj, Ajmer ..	Length Measures.
(11)	Ashumal Chotumal, Bhinmal .. ..	Cast Iron, Brass and Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Measures.
(12)	Bahadur Singh Ghanshyam Das, Sri Ganganagar ..	Cast Iron, Brass and Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Measures
(13)	Baktawar Ram Shivanath Dauji Road, Bikaner ..	Cast Iron and Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.
(14)	Bayrang Lal Radheyshyam Bophanganj, Bhilowara ..	Cast Iron Brass and Bullion Weights and Litre Measures.
(15)	Balotra Co-operative Marketing Society Ltd., Balotra ..	Cast Iron and Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.
(16)	Bansilal Radheyshyam, Bhustiyon Ka Bas, Jodhpur ..	Cast Iron, Brass and Bullion Weights, Length and Capacity Measures.
(17)	Bediram Phool Chand, Mohanpura, Indgagarh ..	Cast Iron, Brass Bullion Weights and Capacity Measures, Beam Scales Class C and D.
(18)	Bharat Industrial and Trading Co. Alwar .. ..	Cast Iron and Brass Weights.
(19)	Bharatpur Tamba Pital Utpadak Sah Samiti, Bharatpur ..	Cast Iron and Brass Weights
(20)	Bhagwanji Pd. Laxmichand, Bharatpur .. ..	Cast Iron, Brass and Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.
(21)	Bhantia Industries, Nagaur .. .. .. ..	Brass and Cast Iron Weights and Length Measures.
(22)	Bhatia Ispat Udog Mandir, Rani .. .. ..	Cast Iron Brass and Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines
(23)	Bhanvar Lal Kamsara, Ada Bazar, Jodhpur ..	Brass and Cast Iron Weights and Length Measures.
(24)	Bhanwarlal Prem Chand, Deogarh .. .. ..	Cast Iron, Brass and Bullion Weights Length and Capacity Measures, Beam Scales and Counter Machines.

Dealers (*Contd.*)

Sl. No.	Name and Address of Dealer	Details of articles Sold
(25)	Bhatia Iron Store, Anaj Mandi, Ganganagar .. ..	Brass and Cast Iron Weights and Length and Capacity Measures.
(26)	Bhinmal Co-operative Marketing Society Ltd., Bhinmal ..	Cast Iron, Brass and Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.
(27)	Bhonri Lal Ramchandra, Choudhry, Ponsari Bazar, Alwar	Cast Iron, Brass and Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.
(28)	Bhiyani Foundry and Engineering Works, Hanumangarh	Brass Weights.
(29)	Bodumal Chopt Mal, Merta City .. .. ..	Cast Iron, Brass and Bullion Weights Length and Capacity Measures, Beam Scales and Counter Machines.
(30)	Buchiram Badri Pershad, Gangamandir, Bharatpur ..	Cast Iron, Brass and Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.
(31)	Chamgria Hardware Stores, Fatehpur .. ..	Cast Iron, Brass and Bullion Weights.
(32)	Chandmal Verma, Kisangarh .. ..	Cast Iron, Brass and Bullion Weights.
(33)	Chandmal Rajmal Jain Mangrol (Kota) .. ..	Cast Iron, Brass, Bullion Weights, Length and Capacity Measures, Beam Scales Class C.D
(34)	Chaturbhuj Jagannath, Mewari Bazar, Beawar ..	Cast Iron, Brass and Bullion Weights and Beam Scales Class C. D.
(35)	Choturam Kishanram and Co., Sadar Bazar, Nagaur	Cast Iron, Brass and Bullion Weights Length and Capacity Measures, Beam Scales and Counter Machines.
(36)	Chunnilal Ganga Vishan, Sojat City .. ..	Cast Iron, Brass and Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines
(37)	Chunnilal Ram Chandra, Nakha .. ..	Beam Scale—Class C. D.
(38)	Damodar Prasad, Kalyan Sahai Iron Merchant, Dausa	Cast Iron, Brass and Bullion Weights, Length and Capacity Measures and Beam Scales.
(39)	Deepak and Co., Chaura Rasta, 970, Jaipur ..	Weighbridges, platform machines, counter machines and Beam Scales Class A. B. C.
(40)	Desh Raj Haveli Ram Bhatia, Kota Road, Bundi ..	Cast Iron, Brass Weights, Beam Scales Class C.D
(41)	Deva Ram Heera Lal, Nokha .. .. ..	Beam Scales Class C. D. and Counter Machines.
(42)	Bholaji Sohan Lal, Iron Merchant, Bhawanimandi	Length and Capacity Measures.
(43)	Fajal Hussain M. Abdul Hussain, Baran .. ..	Cast Iron, Brass, Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.
(44)	Faiz Mohd Khan, Chaudiki Taksal, Jaipur ..	Brass Weights.
(45)	Fazalalli Mulla Abdul Kadar and Co., Ramganjmandi	Cast Iron, Brass, Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.
(46)	Fakruddur Hazi Allabux Bhupalganj, Bhilwara ..	Cast Iron, Brass, Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.
(47)	Ganesh Dass Shankarlal Dakwala, Merta City .. ..	Cast Iron, Brass, Bullion Weights, Length and Capacity Measures, Beam Scale sand Counter Machines.

Dealers (*Contd.*)

Sl. No.	Name and Address of Dealer	Details of Articles Sold
(48)	Ganesh Ram Sohanlal, Dauji Road, Bikaner .. ..	Cast Iron, Brass and Bullion Weights, Length and Capacity Measures, Beam Scales Class B.C.D.
(49)	Ganeshlal Ghanshayam Dass Tambi, Chandpole, Jaipur ..	Cast Iron & Brass Weights.
(50)	Ganga Bux Radhaballabh, Sojat Road, Jodhpur ..	Cast Iron, Brass and Bullion Weights, Length and Capacity Measures, Beam Scales of Class and Counter Machines.
(51)	Ganesh Engineering Works, Beawar .. ..	Brass & Bullion Weights.
(52)	Ganganagar Kishan Marketing Co-operative Society Ltd., Ramganagar.	Cast Iron, Brass Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.
(53)	Gauri Shankar Rajendra Parshad, Sri Ganganagar ..	Cast Iron, Brass Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.
(54)	Gaurishankar Khendalwal, Chandi-ki-Taksal, Jaipur ..	Cast Iron, Brass & Bullion Weights, Length and Capacity Measures, Beam Scales, Class B.C.D.
(55)	Gulab Chand Chardma Industries, Jodhpur ..	Brass Bullion & Sheet Metal Weights.
(56)	Goyal Industries, Atalbund Mandi, Bharatpur ..	Cast Iron, Brass and Bullion Weights.
(57)	Gulab Chand Rammnarain, Kotla Bazar, Jodhpur ..	Cast Iron, Brass, Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.
(58)	Gulam Abbas, Gulam Hussain, Bundi .. ..	Cast Iron, Brass, Bullion Weights, Length and Capacity Measures, Beam Scales, Counter Machines.
(59)	Gupta & Co., Atalbund Mandi, Bharatpur ..	Cast Iron, Brass and Bullion Weights, Length and Capacity Measures, Beam Scales, Class B.C.D.
(60)	Hajibhura Daudllai, Tripolia Bazar, Jaipur ..	Cast Iron, Brass, Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.
(61)	Hamirmal Sukh Raj, Beawar .. ..	Bullion Weights, Beam Scales and Counter Machines.
(62)	Hansraj Ganeshlal Iron Merchant, Sangaria ..	Cast Iron, Brass, Bullion Weights, Beam Scales and Counter Machines.
(63)	Hanumangarh Iron Metal Works, Hanumangarh ..	Cast Iron, Brass, Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.
(64)	Haroomal Dhannomal, Naya Bazar, Ajmer ..	Cast Iron, Brass, Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.
(65)	Hind General Store, Karauli .. ..	Cast Iron, Brass, Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.
(66)	Hind Co-operative Marketing Society Ltd., Hindau, Dist. Sawai Madhopur.	Cast Iron, Brass, Bullion Weights, Beam Scales and Counter Machines.
(67)	Hukam Iron & Brass Foundry, Jaipur Road, Ajmer ..	Cast Iron Weights and Length Measures.
(68)	Hazi Firoz Khan Faiz Mohd. Gangasahar, Bikaner ..	Cast Iron, Brass, Bullion Weights and Counter Machines.
(69)	Hyder Hussain Fida Hussain, Khanpur (Jhalawar)	Cast Iron, Brass, Bullion Weights, Length and Capacity Measures Beam Scales and Counter Machines.
(70)	Ibrahim Issaji, Bhopalganj, Bhilwara ..	Cast Iron, Brass, Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.

Dealers (*Contd.*)

Sl. No.	Name and Address of Dealers	Details of Articles Sold
(71)	Ibrahim Mullah Ismaile, Ranganjmandi (Kota) ..	Cast Iron and Brass Weights and Beam Scales Class C. & D.
(72)	Indra & Co., Station Road, Jodhpur ..	Cast Iron, Brass Weights, Length and Capacity Measures, Spring balances and Counter Machines.
(73)	Ismailaji Sultanji, Baran (Kota) .. .. ..	Cast Iron and Brass Weights and Beam Scales Class C. & D.
(74)	Kaluram Tara Chand, Baran .. .. ..	Cast Iron, Brass, Bullion Weights and Beam Scales Class C. & D.
(75)	Kamal Supply Corp. S.M.S. Highway, Jaipur ..	Capacity Measures.
(76)	Kanatraj Jauri Lal, Beawar .. .. ..	Bullion Weights, Beam Scales, and Counter Machines.
(77)	Kashi Ram Mathuram Dass, Iron Merchant, Nagaur ..	Cast Iron, Brass and Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.
(78)	Kazi Firoj Khan Faiz Mohd., Gangasagar, Bikaner ..	Cast Iron, Brass, Bullion Weights and Counter Machines.
(79)	Karam Chand Manohar Lal, Baran Dist. Kota ..	Cast Iron, Brass, Bullion Weights, Capacity and Length Measures, Beam Scales and Counter Machines.
(80)	Kesrilal Lal Chand, Near Gangamandir, Bharatpur ..	Cast Iron, Brass and Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.
(81)	Kekri Marketing Coop. Society, Kekri .. ..	Cast Iron & Brass Weights.
(82)	A. R. Khulki & Sons, Inside Sojat Gate, Jodhpur ..	Cast Iron, Brass Weights, Beam Scales Class C. & D.
(83)	Kashar Engineering Fdy. Works, Ratangarh ..	Cast Iron, Brass Length and Capacity Weights & Measures.
(84)	Krishanlal Jagdish Prasad, Sri Ganganagar ..	Cast Iron, Brass and Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.
(85)	Kirpa Ram Laxmi Narain, Dhanmandi, Sri Ganganagar ..	Length and Capacity Measures.
(86)	Krishna Iron Store, Danji Road, Bikaner ..	Cast Iron, Brass, Bullion Weights, Capacity and Length Measures, Beam Scales and Counter Machines.
(87)	Kurbanali & Abdul Hussain, Subhash Marg, Udaipur ..	Cast Iron, Brass Weights, Length Measures, Beam Scales Class C. & D.
(88)	Ladhuwal Prem Chand, Bassi .. .. ..	Cast Iron & Brass Weights.
(89)	Laxmandass Ram Dass & Co, Sadar Bazar, Jodhpur ..	Cast Iron, Brass, Bullion Weights, Length and Capacity Measures Beam Scales and Counter Measures.
(90)	Laxmi Iron Traders, Kotla Bazaar, Jodhpur ..	Cast Iron, Brass, Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Measures.
(91)	Lal Chand Anoop Chand, Sadar Bazar, Phalodi ..	Cast Iron, Brass, Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.
(92)	Lal Chand Shyam Dass, Rakhi House, Jodhpur ..	Cast Iron, Brass, Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Measures.
(93)	Lal Chand Mukand Lal, Iron Merchant, Semepur ..	Cast Iron, Brass, Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.
(94)	Mahavir & Co., Mahi Darwaja, Nagaur .. ..	Cast Iron, Brass, Bullion Weights, Beam Scales and Counter Machines.
(95)	Mahiram Sriram, Tinpoha Bazaar, Jaipur .. ..	Cast Iron & Brass Weights.

Dealers (*Contd.*)

Sl. No.	Name and Address of Dealers				Details of Articles Sold
(96)	Mangatrai Mannalal, Khetri	..	..	..	Cast Iron, Brass & Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.
(97)	Mansinghka Store, Bhilwara	..	..	..	Cast Iron, Brass & Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines
(98)	Mangaldass Wadhumal, Beawar	..	..	..	Cast Iron & Brass Weights, Length and Capacity Measures, Beam Scales and Counter Machines.
(99)	Mangal Manufacturing Co., Jalora	..	..	..	Cast Iron, Brass and Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.
(100)	Mital Brother, Sardarsahar	..	..	..	Cast Iron, Brass and Bullion Weights, Length & Capacity Measures, Beam Scales and Counter Machines.
(101)	Meghraj Dauraj & Durga Pershad, Near Rampuria College, Bikaner.				Cast Iron, Brass and Bullion Weights, Length and Capacity Measures, Beam Scales Class B. C. D.
(102)	Magan & Coy., Nayaghat Road, Jaipur	..	..	..	Cast Iron and Brass Weights.
(103)	Modern Engineering Works, Opp. Anand Cinema, Jaipur				Cast Iron Weights.
(104)	Motiram Mangalchand Jain, Madar Gate, Ajmer				Cast Iron & Brass Weights, Length Capacity and Measures, Beam Scales and Counter Machines.
(105)	Mohn Foundry Works, Minerva Road, Jodhpur				Cast Iron & Brass Weights.
(106)	Mohd. Ali Gulam Hussain, Jhalawar	..	..	..	Cast Iron, Brass, Bullion Weights, Length and Capacity Measures, Beam Scales, Class C & D.
(107)	Mistry Jamaluddin, Naya Kuan, Bikaner	..	..	..	Length and Capacity Measures, and Counter Machines.
(108)	Mitanand Jawala Pd., Fatehpur	..	..	..	Cast Iron, Brass & Bullion Weights, Length and Capacity Measures, Beam Scales of Class B.C.D.
(109)	Mohan Industries, Srinagar Road, Ajmer	..	..	..	Length & Capacity Measures.
(110)	Moolchand Gishulal Lohia, Beawar	..	..	..	Cast Iron and Brass Weights, Length and Capacity Measures, Beam Scales and Counter Machines.
(111)	Mull Gulam Abbas, Fazal Ali & Co., Jhalavapur				Cast Iron and Brass Weights Length, and Capacity Measures, Beam Scales and Counter Machines.
(112)	Moolraj Jai, Padampur, Sri Ganganagar	..	..	..	Length and Capacity Measures.
(113)	Mohammadi Store, Outside Hathipole, Udaipur	..	..	..	Cast Iron, Brass Weights, Length Measures, Beam Scales Class C.D.
(114)	Moti Ram Ram Saran Dass Dalmia, 73, Grain Market Srigananagar.				Cast Iron, Brass, Bullion Weights, Length and Capacity Measures, Beam Scales & Counter Machines.
(115)	Mukatasar Iron Store, Sri Ganganagar	..	..	..	Cast Iron & Brass Weights.
(116)	Naram Lal Ballabh Pd., Hinduan Sarai, Madhopur Dist.				Cast Iron, Brass & Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.
(117)	Nathulal Ram Swarup, Iron Merchant, Sikar	..	..	..	Cast Iron, Brass & Bullion Weights, Length and Capacity Measures, Beam Scales of Class B.C.D.
(118)	Nazumuddin Mohd. Hussain, Baran (Kota)	..	..	..	Cast Iron & Brass Weights, and Beam Scales, Class C. & D.
(119)	Om Prakash Gupta, Sri Ganganagar	..	..	..	Cast Iron, Brass & Bullion Weights, Lengths and Capacity Measures, Beam Scales and Counter Machines.

Dealers (*Contd.*)

Serial No.	Name and Address of Dealers	Details of Articles Sold
(120)	Popular Iron Foundry, Alwar .. .. ..	Cast Iron Weights.
(121)	Parashuram Rormal, Goyal Bazar, Sri Ganganagar .. .. ..	Cast Iron, Brass, Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.
(122)	Pokarmal Hardwarimal, Bhilwara .. .. ..	Cast Iron, Brass, Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.
(123)	Precision Machinery Co., Ramganj Bazar, Jaipur .. .. ..	Cast Iron, Brass and Bullion Weights, Length and Capacity Measures, Weigh-Bridges Platform Machines, Spring Balances, Counter Machines and Beam Scales.
(124)	Prasadi Lal Moti Lal, Bharatpur .. .. ..	Cast Iron, Brass, Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Measures.
(125)	Purushottam Dass Shyam Sundaar, Bharatpur .. .. ..	Cast Iron, Brass, Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Measures.
(126)	Radha Krishan Ram Narain, Iron Merchant, Sikar .. .. ..	Cast Iron, Brass and Bullion Weights, Length and Capacity Measures, Beam Scales of Class B.C.D.
(127)	Radhaballabh Shivanarain, Village Piparcity .. .. ..	Cast Iron, Brass, Bullion Weights, Length and Capacity Measures Beam Scales and Counter Machines.
(128)	H. M. Rahimbau & Sons, Nagaur .. .. ..	Cast Iron, Brass, Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.
(129)	Ram Lal Ojha, Dauji Road, Bikaner .. .. ..	Cast Iron, Brass, Bullion Weights, Length and Capacity Measures, Beam Scales, Class B.C.D. and Counter Machines.
(130)	Raghunath Manak Chand, Jhalawar .. .. ..	Cast Iron, Brass, Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.
(131)	Rajabahi Ebrahim, Bahadur Bazar, Kotta .. .. ..	Length and Capacity Measures, Beam Scales and Counter Machines.
(132)	Rajasthan Loha Bhandar, Fatehnagar .. .. ..	Cast Iron, Brass, Bullion Weights, Length Capacity Mcasures, Beam Scales and Counter Machines.
(133)	Ramballabh Ramgopal, Tripolia Bazar, Jaipur .. .. ..	Cast Iron and Brass Weights, Length and Capacity Measures and Brass Scales.
(134)	Ram Niwas Ramja, Chaudhri, Sadar Bazar, Kekri .. .. ..	Cast Iron and Brass Weights, Length and Capacity Measures, Beam Scales and C. & D.
(135)	Ranghanaranath and Sons, Phatodi .. .. ..	Length and Capacity Measures, Beam Scales and Counter Machines.
(136)	Ratan Lal Radhey Shyam, Naya Bazar, Ajmer .. .. ..	Cast Iron, Brass and Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.
(137)	Roopchand Bansilal, Jaisalmar .. .. ..	Cast Iron, Brass and Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.
(138)	Rupchand Ganeshlal, Naya Bazar, Ajmer .. .. ..	Cast Iron, Brass and Bullion Weights.
(139)	Sadiquali M. Allah Bax, Bhupalganj, Bhilwara .. .. ..	Cast Iron, Brass and Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.

Dealers (*Contd.*)

Sl. No.	Name and Address of Dealer	Details of Articles Sold.
(140)	Sadigali Taibali, Mandi-Kinal, Udaipur .. ..	Cast Iron, Brass and Bullion Weights, Capacity and Length Measures, Beam Scales and Counter Machines.
(141)	Sanghi Iron and Pipe Storage, Sri Ganganagar ..	Cast Iron, Brass, Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.
(142)	Sanlal Tiwari, Nohar .. .. ..	Cast Iron, Brass, Bullion Weights, Beam Scales and Counter Machines.
(143)	Saraf Brother, Nagaur .. ..	Cast Iron, Brass and Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.
(144)	Saify Iron and Hardware Store, Nathdwara ..	Cast Iron, Brass, Bullion Weights Length and Capacity Measures, Beam Scales and Counter Machines.
(145)	Secretary, Sarafan Sangh, Ajmer .. ..	Bullion Weights.
(146)	Sabhu Traders, Pokraukti Newali, Jodhpur ..	Weighbridges, Platform Machines, Counter Machines and Beam Scales.
(147)	Shan Dhanpatlal Laxmi Chand, Falna .. ..	Cast Iron, Brass, Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.
(148)	Shankar Lal Surajmal, Kherwara .. ..	Cast Iron, Brass Weights, Length Measures, Beam Scales Class C. D.
(149)	Sharma Industries, Station Road, Ajmer .. ..	Brass Weights.
(150)	Shauks and Harris, Roopangarh Road, Krishnagarh ..	Cylindrical Measures.
(151)	Shanker Lal and Co., Naya Kua, Bikaner ..	Brass and Bullion Weights and Length Measures.
(152)	Shankarlal Sri Narain, Kadalganj, Alwar .. ..	Cast Iron, Brass and Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.
(153)	Sri Mahalaxmi Foundry Works, Bhilwara ..	Brass and Bullion Weights.
(154)	Singhal Brothers, Nasirabad, Ajmer .. ..	Cast Iron, Brass and Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.
(155)	Sridharlal, Village Ramsar .. .. ..	Cast Iron and Brass Weights, Beam Scales Class C. and D.
(156)	Suganchand Radha Krishan, Lohia Bazar, Beawar ..	Cast Iron and Brass Weights, Length and Capacity Measures, Beam Scales Class C. D. and Counter Machines.
(157)	Suresh Iron Works, Bharatpur .. .. ..	Brass Weights.
(158)	Summerpur Marketing Co-op. Society Ltd., Summerpur ..	Cast Iron, Brass, Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.
(159)	Tansukhrai Ghanshyamdas Atuna Bazar, Sardar Sahar ..	Cast Iron, Brass, Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.
(160)	Tara Chand Fatehtal Jain Village Rakhab Deo ..	Cast Iron, Brass Weights, Length measures, Beam Scales Class C. D.
(161)	Tara Chand Banwarlal, Beawar .. ..	Bullion Weights Beam Scales and Counter Machines.
(162)	Usmanji Abdulghafoor, Near Somnath Temple, Pali ..	Cast Iron, Brass, Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.

LICENSED MANUFACTURERS, DEALERS & REPAIRERS OF WEIGHTS & MEASURES (19)

**Dealers (Contd.)**

Sl. No.	Name and Address of Dealer	Details of Articles Sold				
(163)	Vija and Co. Pali .. .. .. ..	Cast Iron, Brass, Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.				
(164)	Vijaya Metal Industries, Station Road, Jaipur ..	Cast Iron Weights.				
(165)	Vasu Deo M. Sudwani, Bhopalganj, Bhilwara ..	Cast Iron, Brass, Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.				
(166)	Vijai Laxmi Trading Co., Sikar .. ..	Cast Iron, Brass, Bullion Weights, Length and Capacity Measures, Beam Scales Class B. C. D.				
(167)	Vijailal Narsingh dass Lohia, Tripolia, Jaipur ..	Cast Iron, Brass and Bullion Weights, Length and Capacity Measures, Beam Scales Class B. C. D. and Counter Machines.				
(168)	Vasudeo Nabhar dass Bundi .. .. .. ..	Cast Iron and Brass Weights and Beam Scales, Class C. D.				

**Ajmer Division**

**Repairers**

Sl. No.	Name and Address of Repairer	Details of Articles Sold				
(1)	Abdul Latif S/o Mohd. Yaqub, Chandi-ki-Taksal, Jaipur ..	(1) Cast Iron, Brass, Bullion Weights (2) Length and Capacity Measures, (3) Beam Scales and Counter Machines.				
(2)	Assu Industries, Apaner, Bhagwanganj .. ..	Cast Iron, Brass, Bullion Length and Capacity Measures, Beam Scales and Counter Machines.				
(3)	Avery and Co., M. I. Road, Jaipur .. ..	Cast Iron, Brass, Bullion Weights, Length and Capacity Measures, Beam Scales and Weigh Bridges, Platform Machines, Counter Machines.				
(4)	Deepak and Co., 970 Chaura Rasta, Jaipur ..	Cast Iron, Brass, Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines.				
(5)	Gordan Dass Krishan Ballabh, Fatehpurai, Beawar ..	Do.				
(6)	Gupta and Co., Atalbund Mandi, Bharatpur ..	Do.				
(7)	Jewan Ram Balu Ram, Pali Bazar, Beawar ..	Do.				
(8)	Kalyan Tin Factory, Iron Merchant, Ajmer ..	Cast Iron Weights and Beam Scales.				
(9)	Mohd. Ismile, Naya Bazar, Ajmer ..	Beam Scales and Counter Machines.				
(10)	Mohd. Ismile, Luhar Mohalla, Beawar ..	Cast Iron and Brass Weights, Length and Capacity Measures, Beam Scales.				
(11)	New Light Repairing Shop, Atalbanmandi, Bharatpur ..	Cast Iron, Brass, Bullion Weights, Length and Capacity Measures Beam Scales and Counter Machines.				
(12)	New India Scale Co., Tonk .. .. .. ..	Cast Iron, Brass, Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines, Weigh Bridges, Platform Machines, Counter Machines etc.				

**Repairers (Contd.)**

Sl. No.	Name and Address of Repairer	Details of Articles Sold
(13)	Precision Machinery and Co., Ramganj Bazar, Jaipur	Cast Iron, Brass, Bullion Weights, Length and Capacity Measures, Beam Scales and Counter Machines, Weigh Bridges, Platform Machines, etc.

**Bikaner Division**

(14)	Azad Trunk Factory Sri Ganganagar	.. .. .. (1) Cast Iron, Brass, Bullion Weights. (2) Length and Capacity Measures. (3) Beam Scales and Counter Machines.
(15)	Bhatia Iron Stores, Anajmandi, Sri Ganganagar	.. .. Do.
(16)	Bhadurchand Ghynshyam das, Sri Ganganagar	.. .. Do. and
(17)	Dalmia Iron Industries, Sri Ganganagar	.. .. Platform Mach. and Weigh Bridges.
(18)	Muktsar Iron Stores, Sri Ganganagar	.. .. (1) Cast Iron, Brass, Bullion Weights. (2) Beam Scales and Counter Mech.
(19)	National Scale Works, Bikaner	.. .. Do.
(20)	Shankarlal and Co. Naya Bazar, Bikaner	.. .. (1) Cast Iron, Brass, Bullion Weights. (2) Beam Scales and Counter Machines.

**Jodhpur Division**

(21)	Banthia Industries, Nagaur	.. .. .. Cast Iron, Brass, Bullion Weights, Beam Scales.
(22)	Kadalwa Kanta Factory, Nagaur	.. .. Beam Scales, Counter Machines and Spring Balances.
(23)	Mool Chand Suthar, Kajiyon-Ka-ghat, Nagaur	.. .. Beam Scales, Counter Machines and Spring Balances.

**Kota Division\***

(24)	Fazal Hussain Mulla Abdul Hussain, Baran	.. .. .. (1) Cast Iron, Brass, Bullion Weights (2) Length and Capacity Measures (3) Beam Scales and Counter Mach.
(25)	Inayat Hussain Razabali Kota	.. .. Do.
(26)	Naraindas Mangaldass, Ladvpura Bazar, Kota	.. .. Do.
(27)	Nisar Hussain Ahsan Hussain, Kota	.. .. Do.
(28)	Om Prakash and Co., Rampura Bazar, Kota	.. .. Do.

**Udaipur Division**

(29)	Janta Chair Co., Gulmandi, Bhilwara	.. .. .. (1) Cast Iron, Brass, Bullion Weights. (2) Length and Capacity Measures. (3) Beam Scales and Counter Mach.
(30)	Vasudeo M. Sadwani, Bhupalganj, Bhilwara	Do.